

# FORWARD DEPLOYMENT OF U.S. NAVAL FORCES TO AUSTRALIA

A thesis presented to the Faculty of the U.S. Army  
Command and General Staff College in partial  
fulfillment of the requirements for the  
degree

MASTER OF MILITARY ART AND SCIENCE  
(Strategy)

by

MICHAEL R. WOHNHAAS, LCDR, USN  
(B.S., U.S. Naval Academy, Annapolis, MD, 1996)

Fort Leavenworth, Kansas  
2007

Distribution statement:  
Approved for public release; distribution is unlimited.

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved</i> <b>OMB No. 0704-0188</b>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. <b>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.</b>				
<b>1. REPORT DATE (DD-MM-YYYY)</b> 14-12-2007		<b>2. REPORT TYPE</b> Master's Thesis		<b>3. DATES COVERED (From - To)</b> FEB 2007 - DEC 2007
<b>4. TITLE AND SUBTITLE</b> Forward Deployment of U.S. Naval Forces to Australia		<b>5a. CONTRACT NUMBER</b>		
		<b>5b. GRANT NUMBER</b>		
		<b>5c. PROGRAM ELEMENT NUMBER</b>		
<b>6. AUTHOR(S)</b> WOHNHAAS, MICHAEL R., LCDR		<b>5d. PROJECT NUMBER</b>		
		<b>5e. TASK NUMBER</b>		
		<b>5f. WORK UNIT NUMBER</b>		
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD 100 Stimson Ave. Ft. Leavenworth, KS 66027-2301		<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>		
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b>		<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>		
		<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>		
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b>  Approved for public release; distribution is unlimited.				
<b>13. SUPPLEMENTARY NOTES</b>				
<b>14. ABSTRACT</b> Per the 2006 Quadrennial Defense Review (QDR), the U.S. Navy intends to increase its presence in the Pacific Ocean. Unfortunately, the size of the Pacific means that U.S.-based ships spend a smaller proportion of each deployment available in theater. Forward-Deployed Naval Forces (FDNF) represent an attractive alternative, but current overseas bases cannot easily accommodate more ships. Australia, a strong U.S. ally in the heart of the theater, offers a number of potential advantages including numerous suitable ports, an educated English-speaking population, and the opportunity for strengthening diplomatic ties and military interoperability. Calculations of transit times and distances reveals potential savings in both transit costs and ship constructions (FDNF can "do more with less") that might repay the required initial investment in basing. Other possible benefits of increasing the FDNF footprint include reassurance of regional allies, a counter-balance to growing Chinese influence, and a chilling effect on terrorism, piracy, and drug trafficking. Potential drawbacks include initial investment requirements, an Australian backlash against the alliance, or a perceived threat to Chinese or North Korean interests. Nevertheless, Australia, America, and other Pacific Rim nations might accept, and could benefit from, such basing.				
<b>15. SUBJECT TERMS</b> Australia, FDNF, Fleet Response Plan, Fleet Readiness Training Plan, Forward Deployment, Navy				
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>  UU	<b>18. NUMBER OF PAGES</b>  104
<b>a. REPORT</b> Unclassified	<b>b. ABSTRACT</b> Unclassified	<b>c. THIS PAGE</b> Unclassified		
				<b>19b. TELEPHONE NUMBER</b> (include area code)

MASTER OF MILITARY ART AND SCIENCE  
THESIS APPROVAL PAGE

Name of Candidate: Michael R. Wohnhaas

Thesis Title: Forward Deployment of U.S. Naval Forces to Australia

Approved by:

\_\_\_\_\_, Thesis Committee Chair  
Sharon L. Scott, DJIMO

\_\_\_\_\_, Member  
LTC Graeme Finney, DJIMO

\_\_\_\_\_, Member  
Dr. John Kuehn, DMH

Accepted this 14th day of December 2007 by:

\_\_\_\_\_, Director, Graduate Degree Programs  
Robert F. Baumann, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

## CERTIFICATION FOR MMAS DISTRIBUTION STATEMENT

1. Certification Date: 14 December 2007

2. Thesis Author: Michael R. Wohnhaas

3. Thesis Title: Forward Deployment of U.S. Naval Forces to Australia

4. Thesis Committee Members:

Signatures:

5. Distribution Statement: See distribution statements A-X in ST 20-10 2007, p. B-8, then circle appropriate distribution statement letter code below:

(A) B C D E F X

If your thesis does not fit into any of the above categories or is classified, you must coordinate with the classified section at CARL.

6. Justification: Justification is required for any distribution other than described in Distribution Statement A. All or part of a thesis may justify distribution limitation. See limitation justification statements 1-10 on reverse, then list, below, the statement(s) that applies (apply) to your thesis and corresponding chapters/sections and pages. Follow sample format shown below:

### EXAMPLE

<u>Limitation Justification Statement</u>	/	<u>Chapter/Section</u>	/	<u>Page(s)</u>
Direct Military Support (10)	/	Chapter 3	/	12
Critical Technology (3)	/	Section 4	/	31
Administrative Operational Use (7)	/	Chapter 2	/	13-32

Fill in limitation justification for your thesis below:

<u>Limitation Justification Statement</u>	/	<u>Chapter/Section</u>	/	<u>Page(s)</u>
	/		/	
	/		/	
	/		/	
	/		/	
	/		/	

7. MMAS Thesis Author's Signature: \_\_\_\_\_

STATEMENT A: Approved for public release; distribution is unlimited. (Documents with this statement may be made available or sold to the general public and foreign nationals).

STATEMENT B: Distribution authorized to US Government agencies only (insert reason and date ON REVERSE OF THIS FORM). Currently used reasons for imposing this statement include the following:

1. Foreign Government Information. Protection of foreign information.
2. Proprietary Information. Protection of proprietary information not owned by the US Government.
3. Critical Technology. Protection and control of critical technology including technical data with potential military application.
4. Test and Evaluation. Protection of test and evaluation of commercial production or military hardware.
5. Contractor Performance Evaluation. Protection of information involving contractor performance evaluation.
6. Premature Dissemination. Protection of information involving systems or hardware from premature dissemination.
7. Administrative/Operational Use. Protection of information restricted to official use or for administrative or operational purposes.
8. Software Documentation. Protection of software documentation - release only in accordance with the provisions of DoD Instruction 7930.2.
9. Specific Authority. Protection of information required by a specific authority.
10. Direct Military Support. To protect export-controlled technical data of such military significance that release for purposes other than direct support of DoD-approved activities may jeopardize a US military advantage.

STATEMENT C: Distribution authorized to US Government agencies and their contractors: (REASON AND DATE). Currently most used reasons are 1, 3, 7, 8, and 9 above.

STATEMENT D: Distribution authorized to DoD and US DoD contractors only; (REASON AND DATE). Currently most reasons are 1, 3, 7, 8, and 9 above.

STATEMENT E: Distribution authorized to DoD only; (REASON AND DATE). Currently most used reasons are 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.

STATEMENT F: Further dissemination only as directed by (controlling DoD office and date), or higher DoD authority. Used when the DoD originator determines that information is subject to special dissemination limitation specified by paragraph 4-505, DoD 5200.1-R.

STATEMENT X: Distribution authorized to US Government agencies and private individuals of enterprises eligible to obtain export-controlled technical data in accordance with DoD Directive 5230.25; (date). Controlling DoD office is (insert).

## ABSTRACT

FORWARD DEPLOYMENT OF U.S. NAVAL FORCES TO AUSTRALIA by LCDR Michael R. Wohnhaas, USN, 129 pages.

Per the 2006 Quadrennial Defense Review (QDR), the U.S. Navy intends to increase its presence in the Pacific Ocean. Unfortunately, the size of the Pacific means that U.S.-based ships spend a smaller proportion of each deployment available in theater. Forward-Deployed Naval Forces (FDNF) represent an attractive alternative, but current overseas bases cannot easily accommodate more ships. Australia, a strong U.S. ally in the heart of the theater, offers a number of potential advantages including numerous suitable ports, an educated English-speaking population, and the opportunity for strengthening diplomatic ties and military interoperability. Calculations of transit times and distances reveals potential savings in both transit costs and ship constructions (FDNF can “do more with less”) that might repay the required initial investment in basing. Other possible benefits of increasing the FDNF footprint include reassurance of regional allies, a counter-balance to growing Chinese influence, and a chilling effect on terrorism, piracy, and drug trafficking. Potential drawbacks include initial investment requirements, an Australian backlash against the alliance, or a perceived threat to Chinese or North Korean interests. Nevertheless, Australia, America, and other Pacific Rim nations might accept, and could benefit from, such basing.

## ACKNOWLEDGMENTS

I would like to thank my committee chair, Ms. Sharon Scott, for her constant encouragement, attention to detail, Pacific theater expertise, and “tough love” when I needed it. I would also like to thank Dr. John Kuehn for his encyclopedic knowledge of naval history and references, and his many insightful corrections and suggestions. I am also grateful to Mrs. Elizabeth Brown for her command of the research and thesis-writing process, and her extraordinary dedication to students. Finally, I would like to express my utmost appreciation and admiration for Lieutenant Colonel Graeme Finney, who epitomizes the finest qualities of a leader, mentor, and friend. Whether the recommendations in this thesis come to fruition or not, my work with Colonel Finney has convinced me more than any amount of research ever could that America has no truer ally than Australia.

## TABLE OF CONTENTS

	Page
MASTER OF MILITARY ART AND SCIENCE THESIS APPROVAL PAGE .....	ii
CERTIFICATION FOR MMAS DISTRIBUTION STATEMENT .....	iii
ABSTRACT.....	v
ACKNOWLEDGMENTS .....	vi
TABLE OF CONTENTS.....	vii
ILLUSTRATIONS .....	xi
TABLES .....	xii
CHAPTER 1. INTRODUCTION .....	1
Thesis .....	4
Underlying Assumptions .....	5
Security Environment .....	5
Deployment Policy.....	5
Logistics Costs .....	5
Delimitations.....	6
Primary and Secondary Research Questions .....	6
Feasibility Analysis.....	6
Political Viability .....	6
Financial Feasibility.....	8
Strategic and Operational Considerations.....	9
Scope.....	11
CHAPTER 2. LITERATURE REVIEW .....	13
Source Material Categories.....	13
Military-Academic Works .....	13
Surveys and Collections.....	15
Historical Background of Australia-U.S. Relationship.....	16
Past U.S. Basing in Australia.....	16
Websites.....	16
Authoritative Primary Source Material.....	17
Secondary Source Material .....	17
Military Cooperation Challenges.....	17
Other Academic Works.....	18



Factual References and Analysis Tools .....	19
Distance Tools .....	19
Cost References .....	20
Government Websites and Documents .....	21
Military Interoperability.....	22
U.S. Strategy .....	22
Australian Strategy and the U.S. Relationship.....	22
Regional Outlooks and Strategic Considerations .....	23
Contrary Views .....	23
Works of Particular Topical Relevance .....	24
Summary .....	25
 CHAPTER 3. RESEARCH METHODOLOGY .....	 27
Foundations.....	27
Analytical Geography .....	27
Operational Cost-Benefit Analysis .....	28
Strategic Analysis .....	30
Historical Foundations and Policy Analysis .....	31
Internal-Political Analysis .....	31
Military-to-Military Analysis.....	32
Geopolitical Analysis.....	32
Methodology Limitations and Delimitations .....	33
Chapter Conclusions .....	34
 CHAPTER 4. ANALYSIS.....	 35
Foundations.....	35
Analytical Geography .....	36
Australia and its Maritime Environment.....	37
Ports—Draft Considerations.....	37
Ports—Environmental and Other Limitations .....	38
Human geography.....	43
Areas of Responsibility .....	44
Western Pacific (WESTPAC), Commander, U.S. Seventh Fleet.....	45
Arabian Gulf / Middle East, Commander, U.S. Fifth Fleet .....	46
Other Reference Points .....	46
Time-Distance Summary .....	47
Geography Conclusions .....	48
Cost-Benefit Analysis .....	50
<i>Source:</i> 13 March 2007 Statement Of Admiral Robert F. Willard, Vice Chief of Naval Operations, before the House Armed Services Committee Subcommittee on Military Readiness, 13 March 2007, at House website (accessed 20 November 2007). .....	51
Response Ratio Calculations .....	53
Utilization of Limited Steaming-Day Allotment .....	54

Response Ratio and Transit Costs .....	55
Compound Efficiencies.....	56
Persistent Presence.....	57
Financial Conclusions: Meeting the Fleet Commander's Needs .....	59
Strategic Considerations .....	62
Historical Context .....	62
Historical Conclusions .....	67
Military-Interoperability Considerations .....	67
Technology Sharing.....	69
Interoperability Conclusions .....	71
Geopolitical Considerations.....	72
U.S. Policy Considerations .....	73
Australian Political Considerations.....	76
Strategy: .....	77
Australia and China: .....	78
Obstacles .....	79
Strengths and Shared Values: .....	80
The 2007 Election .....	81
Regional Partners and Potential Partners .....	83
Japan .....	84
Indonesia.....	85
Others.....	86
China .....	87
Rogue States and Other Potential Threats .....	89
North Korea .....	89
Non-State Actors.....	89
Chapter Conclusions .....	91
CHAPTER 5. CONCLUSIONS .....	92
Chapter Review.....	92
Recommendations.....	94
Areas for Further Exploration.....	95
Specific Case Analysis using Classified Material.....	95
Specific Port Analyses .....	96
Focused Geopolitical Analysis .....	96
Other Ship Classes .....	97
Other Potential Regional Homeports .....	97
Fifth Fleet Basing Comparison of Australia with East Coast Ports.....	98
GLOSSARY .....	100
APPENDIX A. HOMEPORT TIME-DISTANCE TABLE .....	102
APPENDIX B. TRANSIT TIMES AND DISTANCES FROM LEADING AUSTRALIAN HOMEPORTS TO SELECTED REGIONAL HOTSPOTS.....	105

APPENDIX C. AUTHOR’S BACKGROUND AND EXPERIENCE.....	107
REFERENCE LIST .....	108
INITIAL DISTRIBUTION LIST .....	117

## ILLUSTRATIONS

	Page
Figure 1. Great Barrier Reef.....	39
Figure 2. CENTCOM and PACOM (western portion) Areas of Responsibility.....	44
Figure 3. Fleet Readiness Training Plan Notional Framework.....	57

## TABLES

	Page
Table 1. Homeport Suitability Summary .....	41
Table 2. Current and Near-Future Ship Numbers .....	51

## CHAPTER 1

### INTRODUCTION

Per the 2006 Quadrennial Defense Review (QDR), the U.S. Navy intends to increase its presence in the Pacific Ocean, “consistent with the global shift of trade and transport” (Reproduced in CGSC F-100: Changing the Army 2006, F101 AB-55), and also with a recognition that the fast-growing Chinese People’s Liberation Army Navy (PLAN) is the United States of America’s largest maritime competitor. Unfortunately, the geography of the Pacific presents a much greater logistic / time-speed-distance challenge for naval strategists than any other operational theater. Its sheer size means that ships based in the continental United States (CONUS) provide a much smaller return on investment in terms of days in theater versus days out of homeport. Per the QDR “. . . [T]he Navy plans to adjust its force posture and basing . . .” (Reproduced in CGSC F-100: Changing the Army 2006, F101 AB-55) to meet the challenge.

According to the 2007 Maritime Strategy, “United States seapower will be globally postured to secure our homeland and citizens from direct attack and to advance our interests around the world.” (8) More specifically, the Strategy goes on to state, “Credible combat power will be continuously postured in the Western Pacific.” (2007 Maritime Strategy, 9). “As part of its efforts to transform itself to better meet 21<sup>st</sup>-Century needs, the Navy is implementing or experimenting with changes to its traditional methods for deploying its forces overseas. These changes involve . . . homeporting additional Navy ships at forward locations.” (O’Rourke 2006, 1). Such a move might present an attractive strategic option for a variety of reasons. O’Rourke goes on to

describe the difficulties involved in balancing the requirements placed upon U.S.-based ships as follows:

Although the six-month limit on deployment length and the predictability of the rotational deployment schedule have been considered key to the Navy's ability to maintain its forward deployments while meeting its personnel recruiting and retention goals, Navy officials have concluded that the deterrent value of forward-deployed naval forces might be enhanced by making naval forward deployments more flexible and less predictable. Navy officials have also concluded that orienting Navy readiness toward maintaining standard six-month deployments results in a fleet that offers insufficient flexibility for responding to the potential need for surging large numbers of naval forces in a short time to respond to major regional contingencies. " (2)

While the author uses the term "forward deployed" in the broadest sense encompassing all deployed forces, Forward-Deployed Naval Forces (FDNF—in the strict sense of ships homeported overseas) can provide the best of both worlds. Ships can both meet continuous presence requirements and respond immediately to crises through quick sallies from in-theater ports. Parsing an aggressive operational tempo into shorter blocks of time away from homeport can improve families' quality of life, possibly contributing to retention of quality sailors. Operationally, close proximity to potential threat areas liberates ships from the "tyranny of distance" and with it, the predictability of transoceanic deployments planned years in advance. FDNF offer combatant commanders a specialist force, trained in theater-unique challenges, operational and contingency plans (OPLANS and CONPLANS), and intelligence regarding potential threats. Bases in proximity to potential crisis areas serve to defray the enormous cost in fuel, replenishment ships, parts, maintenance, and other expenses currently required simply to move ships across the vast Pacific. Finally and perhaps most importantly, basing warships overseas demonstrates American commitment to this critical theater of

operations in general, and offers the host nation both political and financial indications of U.S. friendship. Increasing our forward-deployed footprint in any feasible in-theater location could dramatically increase Seventh Fleet's responsiveness, with a corresponding *decrease* in operational costs (particularly in terms of fuel expended and wear and tear on equipment involved in the ocean transit from Washington, California, or Hawaii). As O'Rourke concludes, "Increasing the number of ships forward-homeported in the Pacific is viewed as improving the Navy's ability to respond to potential contingencies in locations such as the Korean Peninsula or the Taiwan Strait." (O'Rourke 2006, 3-4) Finally, the prevailing conventional wisdom that the U.S. is focused on withdrawing military forces from overseas bases is based primarily upon Army and, to a lesser extent, Air Force redeployment plans. Such movements of ground and ground-based-aviation forces Stateside, by decreasing the ability of such forces to respond to crises in a timely manner, could actually *increase* requirements for naval power in affected areas (Critchlow, CRS-4).

Current U.S. naval bases in the Western Pacific, however, are already at or near capacity, and will likely be limited in the foreseeable future as to the number of ships they can accommodate. The cultural, political, and environmental sensitivities of the Japanese people and government, and also the costs associated with operating in that space- and resource-constrained nation, make extension of U.S. basing arrangements there unlikely. The basing capacity of the U.S. territory of Guam is limited by its size and infrastructure. Other U.S. dependencies and protectorates in the region also consist of small islands or island chains without large-scale industrial development or infrastructure, and would most likely pose even greater challenges (due to the absence of



any current facilities around which to develop base structures). Environmental considerations in these pristine, non-industrialized islands may also limit further development. America is not without allies in the theater, but several of our regional partners suffer from a range of internal issues likely to limit—if not outright threaten—prospects for U.S. naval basing, ranging from political sensitivities or party strife to secessionist movements and rampant terrorism.

### Thesis

O'Rourke's five principal questions on the issue of USN deployment policy include, "Should the Navy also examine options for forward-homeporting Navy ships in locations like the Mediterranean and Australia?" (O'Rourke 2006, 5) Australia may present an attractive option for U.S. forward basing in the Western Pacific region. It is a close U.S. ally in the theater, with whom we share a common language and a great deal of other cultural common ground, as well as many values, traditions, and strategic interests. Our history of military cooperation reaches back to the First World War, and there are numerous precedents for basing U.S. warships as a result of our mutual struggle against the Japanese in World War Two (WW II). Australia also has a sizable industrial and maritime infrastructure, an educated populace, relatively low population density and cost of living relative to similarly developed East Asian nations, and a stable political and security environment. Can Australia provide politically-viable, cost-effective forward base(s) for U.S. Naval forces? This thesis explores that question as one prospect to develop the most practical and cost-effective forward basing arrangement possible for our ships without discounting such potential alternatives such as expansion of current bases,

exploration of others in U.S. territories or other friendly nations, or maintenance of the current status quo.

### Underlying Assumptions

I will assume the following information for purposes of the study, until and unless disproved by research or current events as of 01 December 2007:

#### Security Environment

The Western Pacific theater security environment will continue to evolve along lines envisioned in current national policy documents, modified only by significant current events reported via unclassified sources.

#### Deployment Policy

The current policy will continue. Aspects of the policy pertinent to this thesis include:

1. Utilizing Seventh Fleet naval assets as a theater response force,
2. Deploying one or two ships at a time under routine conditions, and more as required, to the Fifth Fleet (Arabian Gulf / Horn of Africa) Area of Operations, and
3. Reinforcing forward-deployed ships and aircraft (permanently-assigned Seventh Fleet assets) with Third Fleet ships and squadrons based in Pearl Harbor and on the West Coast of the United States.

#### Logistics Costs

Current U.S. Navy logistics cost projections will continue in full force, or inflate at a proportional rate. In other words, market forces will not, within the time frame

envisioned by the study, drive prices in one particular part of the Pacific theater of operations to diverge from the rest to a significant extent.

### Delimitations

Classified material may be utilized to provide background information, but the thesis should remain unclassified. Research material referred to in the thesis will be limited to unclassified resources, unless questions arise that seemingly cannot be answered by open-source documents, in which case the Committee will make a determination. Unless the classified specifics of current policy and practice are absolutely necessary to determine the answers to research questions, general “best-practice” estimates will be used instead.

### Primary and Secondary Research Questions

#### Feasibility Analysis

#### Political Viability

This is essentially a two-part question, or more precisely a question that must be answered in two stages. Prior to beginning any serious research, it was necessary to ascertain *whether there are any insurmountable political obstacles* to basing U.S. naval assets in Australia—the existence of which would make the entire project an exercise in futility. Factors favoring the proposition begin, of course, with the precedent set in WW II. The current close relationship between both nations and cooperation between their respective militaries in training, research and development, and combat operations suggest potential for further strengthening of the alliance. Discussions with Lieutenant Colonel Finney, CGSC’s Australian liaison instructor, and other experts in the area of

Western Pacific operations and U.S.-Australia relations suggest that basing is not a complete impossibility. A basic review of Australian strategic and policy guidance, with an eye to common interests (or conflicts of interest) also lead to the possibility that Australia's government may respond favorably to U.S. basing initiatives. The question is therefore worthy of further investigation.

A brief exploration of costs and financial benefits (discussed below) leads to several deeper political questions that will constitute the bulk of the paper's strategic analysis. What advantages, not only to the U.S. Navy but to the Australian military, government, and people, might justify U.S. basing to the Australian electorate? Are near-to mid-term internal political changes likely that could drastically alter the current U.S.-Australia military relationship in a negative direction? In other words, to what extent is the existing relationship based upon the personalities of the nations' current leaders versus commonality of strategic interest, broad cultural values, etc.? Could other developments in theater (outside Australia) jeopardize the possibility of basing there, or create heightened sensitivities to increased U.S. presence in the region?

It will also be important to assess other regional nations and how their interests touch upon this issue. What are their views of the current security cooperation relationship between Australia and the U.S.? China, for example, figures prominently (and somewhat controversially) in dialogue between the two nations. Not only does China figure as a potential near-peer military competitor for regional hegemony with the United States, but also as a critical trading partner for both nations, particularly Australia. The potential reaction of North Korea's unpredictable and often-paranoid regime certainly merits consideration as well. Indonesia, Malaysia, Japan, and the Republic of

the Philippines are among the many regional nations who could view a strategic move of this magnitude as either a reinforcement and reassurance of their ties with both the U.S. and Australia, or a gesture of favoritism that may threaten relations with one or both nations.

### Financial Feasibility

An assessment of world opinion and high-level strategic considerations must not, however, ignore the costs and hard data involved in such a tremendous investment. In fact, potential military and political advantages aside, the question of whether to forward-base U.S. warships in any number of countries can be (and has been) dismissed conclusively due either to the prohibitive cost of developing port facilities there, the relative ease and simplicity of sourcing the required naval presence from CONUS bases, or a combination of both factors. The analysis must address the existence in Australia of underutilized deepwater ports, additional capacity at current, developed port facilities, minor ports capable of cost-effective improvement to accommodate U.S. warships, and take into account typical loading/throughput, and costs for the comparable U.S. seaport hosting USN ships. It will be necessary to ascertain whether road and rail networks, and proximity to major airports (for parts support and personnel rotation), seem to indicate potential for support of U.S. naval vessels comparable to current home ports. It will be necessary to assess human as well as physical infrastructure, e.g. does an educated population with the skills required by a typical U.S. naval base exist in reasonable proximity to the projected port(s)?

Finally, preliminary analysis of each of these factors must determine whether the conditions above that currently do not exist, or exist in a suboptimal fashion, are beyond

economic feasibility to bring up to U.S. naval standards. This preceding discussion leads to the next major area to be assessed: cost-benefit analysis, since much of the weight of the examination of the issue will hinge on whether, and when, the cost savings associated with forward-deploying ships and aircraft overseas will offset the costs of developing base facilities and supporting infrastructure. Other potential questions of financial viability include the criteria of the Base Realignment and Closure Commission (BRAC), the competition for scarce resources between the Navy and other services, and between current operations and maintenance versus future-force capitalization. It is quite possible that the mounting costs of the ongoing Global War on Terror may well make any new base construction impossible in the near term. Ultimately, since an in-depth analysis of developing or constructing naval bases is an enormous question beyond the scope of this project, this area of exploration will be limited to estimating a cost ceiling below which development of forward bases in Australia could be considered a viable option from a financial perspective.

### Strategic and Operational Considerations

If it is found to be politically, materially, and financially viable to base U.S. naval forces in Australia, then it is imperative to assess what advantages and risks could result from doing so. Possible secondary benefits to the individual sailors (and, by extension, the Navy) include a reduced cost of living versus alternatives in the region, as well as the opportunity to be stationed in an area currently regarded as a very popular destination for liberty, with the resulting potential for improved morale, recruitment, and retention. Basing naval forces might also strengthen U.S.-Australian maritime trade.

Military benefits might include increasing responsiveness to not only PACOM but CENTCOM requirements and of course a stronger political / strategic partnership with a close ally. On a military-to-military level, both navies could benefit in terms of synergistic training for shared missions, and procurement economies of scale resulting from increased cooperation in research and development of hardware such as the NULKA antiship missile defense (ASMD) decoy system. Crews based in Australia might, like those currently forward-based in Guam and Japan, enjoy an increased awareness of the regional threat, as well as a stronger cultural awareness in this critical theater. An increased FDNF footprint may also reassure regional allies, potentially injecting new life into the U.S.-New Zealand relationship, and bring currently non-aligned nations closer to the U.S. and Australia. An increased U.S. military presence might exercise a chilling effect on piracy, human trafficking, drug trade, and regional terrorism, and may help stabilize regional conflicts such as the Tamil Tiger insurgency and the unrest in East Timor.

On the other hand, potential regional competitors and adversaries such as the People's Republic of China and North Korea might perceive a heightened permanent naval presence as a threat. Alternatively, current allies in the region might become jealous of what they may perceive as a shift in U.S. favor and resources toward Australia. Australians themselves might resent the increased American presence, particularly when (as happens from time to time in Japan) individual servicemembers commit irresponsible acts, or even crimes, while on liberty. Resentment against the U.S. presence might even weaken the position of the current, pro-U.S. government in Australia, with potential worldwide consequences for the alliance. At the military level, interoperability issues

could present themselves, along with a host of hidden costs, hampering the transformation of U.S. and Australian forces.

### Scope

In summary, this paper will assess to the maximum extent possible given the time and resources available, the core Australian naval basing issue. The thesis will touch only briefly on other potential arrangements in the interest of sounding out alternative courses of action and competing schools of thought. It will not descend to in-depth exploration of basing in any particular nation besides Australia. Furthermore, it incorporates a hierarchy of questions, whereby an option will remain for “graceful degradation” of the research process: pruning, or at least truncating analysis of peripheral questions in order to lend proper weight to analysis of the core questions. The research considers the multiple possible meanings of “forward basing” or “forward deployment” and the full spectrum of U.S.-Australian security cooperation. Further research might reveal alternative options to permanent basing of USN ships and aircraft in Australia, such as increased joint training or prepositioning of heavy equipment. This investigation will take place within the broader framework of Sea Basing / Sea Power 21. Extending the Navy’s operational reach through expanded forward-basing arrangements may also expand its “Sea Strike” (power projection) capabilities.

Chapter Two reviews the current state of literature, identifying pertinent schools of strategic thought and existing works of particular topical relevance. It considers a wide variety of military and academic publications, government policies, and websites of interest. Chapter Three outlines research methodology, and serves to connect the questions and problems presented above with the body of literature in Chapter Two.



Chapter Four addresses analysis, subdivided into initial subchapters on analytical geography and financial considerations, followed by sections addressing strategic analysis in terms of historical precedent, Australian internal political considerations, potential military-to-military benefits, and geopolitical considerations regarding neighboring powers. The fifth and final chapter will summarize the research, analysis, and findings. It will conclude with a synopsis of the potential costs, risks, and benefits of forward naval basing in Australia, and a series of recommendations either for or against the initial proposition, as well as a brief discussion of alternative and / or supporting proposals to further advance U.S. and Australian naval power and strategic cooperation.

## CHAPTER 2

### LITERATURE REVIEW

There is a sizable body of literature providing general background on the subjects of Australia-U.S. relations, both historical and current military cooperation between the two nations. There is also a great deal of material describing the Pacific political-strategic environment and the role of the ANZUS alliance in that theater. Trends in the literature generally indicate a strong, well-established security relationship between the two nations that is likely to continue for the foreseeable future. Nevertheless, the ever-evolving course of the Global War on Terror and the internal political fortunes of the present Australian government make close attention to current events an important factor throughout the research process. The specific topic of future forward deployment of U.S. naval forces to Australia appears to be a relatively new field of study (or at least not a primary area of concern for the Navy since World War Two, given the continent's remoteness from Cold War theaters of operation). For research purposes, sources fall into one or more of the following general categories:

#### Source Material Categories

##### Military-Academic Works

Working Papers of Australia's Land Warfare Studies Centre (LWSC), papers and Special Reports published by the Strategic Studies Institute (SSI) of the U.S. Army War College, and various publications of the Airpower Research Institute, National Defense University (NDU), and other institutions of higher military education are generally concise, informative studies of specific issues, several of which are germane to the area

of Australia-U.S. strategic relations. The authors are subject-matter experts, either professors or field-grade officers, writing to address narrowly-defined areas of both personal and national military interest. In “Enhancing” the Australian-U.S. Defense Relationship: A Guide to U.S. Policy (1997), Research Professor Thomas-Durell Young of SSI builds on questions raised in his earlier Australian-U.S. Security Relations in the Post-Cold War World (1993) and The Prospect for Australian-U.S. Defense Cooperation and Operational Arrangements (1993) (a pair of rather tentative and—in the present context of the GWOT—dated studies, given the uncertainties surrounding the future of the alliance, and U.S. strategy in general, when they were published). He cautions against any unilateral recommendations (21), instead recommending a bilateral study committee and five areas for consideration; however, he does not consider the basing issue one way or the other. The LWSC Working Papers are particularly valuable, providing the Australian perspective on military cooperation between the two nations. Of particular note is Alan Ryan’s Australian Army Cooperation with the Land Forces of the United States (2003), subtitled “Problems of the Junior Partner”. Dr. Ryan presents Australia’s involvement in the Global War on Terror in light of a continuum of multinational cooperation as the “junior partner,” beginning with its origins in the British Empire and Commonwealth. He traces both the costs and the benefits (chiefly in technical and tactical modernization) of previous instances of cooperation with the American military, noting (26) the U.S. Marine Corps as “the force with which [the ADF] can best establish combined synergies,” and notes the importance of advance planning, combined doctrine development, and multi- rather than bilateral awareness as key factors for future success.

The U.S. Army's Command and General Staff College (CGSC) Combined Arms Research Library (CARL) also maintains a comprehensive database of Master of Military Arts and Sciences (MMAS) theses and School of Advanced Military Studies (SAMS) monographs, several of which touch upon matters relevant to naval strategy, the East Asian theater, and Australian-U.S. military cooperation. Overall, most military-academic works on the subject are the work of Australian officers attending their own or U.S. staff colleges, thus providing incisive and increasingly-relevant perspectives from the ranks of up-and-coming policymakers in our counterpart armed forces.

### Surveys and Collections

Several collections of related essays and articles provide both breadth and depth for an understanding of relationships in the Southwest Pacific region. Probably the most critical work framing the Australian-American alliance in military, economic, historic, and current-events terms is The Other Special Relationship: The United States and Australia at the Start of the 21<sup>st</sup> Century (2007), edited by Jeffrey D. McCausland, Douglas T. Stuart, William Tow, and Michael Wesley. A product of the Strategic Studies Institute in conjunction with Dickinson College, the Australian National University, and the Griffith University Asia Institute, the book grew out of a previous project surveying the U.S.-U.K. alliance, and establishes a cultural and strategic context for the alliance, examining such factors as the evolution of the ANZUS treaty, the personal relationship between Prime Minister Howard and President Bush, and the two nations' differing perspectives on China. The South Pacific: Emerging Security Issues and U.S. Policy (Dorrance, ed., 1990), on the other hand, is a publication of the Institute for Foreign Policy Analysis offering a wider strategic perspective on the whole theater, including not

only Australia and New Zealand but Russia, China, and various island nations. It is, however, somewhat dated, still referring to the “Soviet Union”.

### Historical Background of Australia-U.S. Relationship

Studying the history of cooperation (and conversely, of difficulties and compatibility issues between the two nations) is useful for evaluating and determining precedents, and framing the evolving relationship between the two nations and their respective militaries. Beginning with a common struggle against Imperial Germany in the First World War, the two nations conducted much more closely aligned operations in WW II. After the war, the relationship continued to develop via the ANZUS Treaty and its evolution through Korea, Vietnam, and Operation DESERT STORM until Prime Minister Howard’s decision to invoke the treaty in response to the terrorist attacks on September 11<sup>th</sup>, 2001. Analysis of this background is critical to set the stage for the two nations’ current and future relationship.

### Past U.S. Basing in Australia

#### Websites

A search of the worldwide web using the terms “Australia USN basing WWII” returns over half a million hits. Clearly, a plethora of background information documenting historical forward basing in Australia is available online. A number of the more commonly-returned links redirect to the “Oz at War” site. Run by Brisbane military enthusiast Peter Dunn, the site provides a basic (but exhaustive, including even small camps such as field hospitals and antiaircraft sites) list of *all* military bases in WWII Australia, with links to further information where available. This very informative

source lists literally hundreds of Australian bases maintained by U.S. and other Allied force.

#### Authoritative Primary Source Material

This category includes the official U.S. military histories of WWII. Building the Navy's Bases in World War II (1947), particularly the second volume, document the strategic rationale driving Australian base construction, and provide details regarding the bases themselves. The "War in the Pacific" subseries of The U.S. Army in World War II series includes a volume entitled Strategy and Command: The First Two Years which also includes some information on naval basing and activities.

#### Secondary Source Material

Core issues such as the location, construction, and strategic role of WWII naval bases is best addressed by the primary sources. On the other hand, recent research may shed light on certain historic ideas which may prove useful today. Strategic Innovation in the Interwar U.S. Navy: The Mobile Base Plan by retired naval officer John T. Kuehn, for example, documents "novel approaches for operating the fleet at extreme distances without secure or available bases" (2). Dr. Kuehn documents the utilization of floating drydocks and other innovative technologies to project and sustain U.S. naval power into the Australian and other theaters of operation.

#### Military Cooperation Challenges

At the other end of the spectrum, American, British, Dutch, and Australian Coalition: Unsuccessful Band of Brothers (Shepard, 2003), an MMAS thesis, covers a less-successful period in the history of allied military operations. Shepard highlights the

struggles involved in forging a coalition against the Japanese onslaught early in WWII, particularly in the area of multinational command and control (C2), leading to the loss of the Netherlands East Indies (now the nation of Indonesia). By examining these failures, he hoped to draw lessons that might improve future multinational operations, lessons that may be useful for closer cooperation with Australian forces in the future.

#### Other Academic Works

Several books, while also written in the Soviet era, nevertheless provide historical context and in-depth analysis of several relevant issues in the Pacific theater. Henry S. Albinski's The Australian-American Security Relationship (1982) traces post-Vietnam defense policy in Australia against a backdrop of domestic politics, provides crucial historical information on the history of Australia's gradual warming towards the People's Republic of China, and also relates Australian and U.S. policies to Japan and other regional powers. Joseph Camilleri's The Australia, New Zealand, U.S. Alliance (1987) analyzes the ANZUS treaty in depth and asserts that, in a fast-changing world, the treaty can continue to benefit all parties while still permitting each independence in its foreign policy. LTC Frank P. Donnini's ANZUS in Revision: Changing Defense Features of Australia and New Zealand in the Mid-1980s (1991) also assesses the Alliance in some detail, but at the close of the Cold War era. Christopher Hubbard's Australian and U.S. Military Cooperation: Fighting Common Enemies (2005) is a much more contemporary work. Hubbard is a professor at Australia's Curtin University of Technology writing for a student audience. He provides critical recent history bridging the gap from the Vietnam era through Operations Enduring and Iraqi Freedom. The book not only presents a great

deal of fresh, up-to-date factual information, but also provides incisive analysis on the nature of the pact itself.

## Factual References and Analysis Tools

### Distance Tools

The Worldwide Web offers a plethora of analytical tools to answer some of the basic factual questions raised by this study. The Naval Vessel Register site lists the status of all active and reserve warships, as well as information regarding those under construction. The Navy's official website contains a wealth of information including the number of ships at sea and those deployed at any given time. Information and tools for analyzing geography and hydrography are available as well. "Great Circle Mapper" (<http://gc.kls2.com/>) is a particularly useful tool for determining great-circle distances (the shortest route between two points on the globe, and therefore preferred for open-ocean navigation, although appearing curved and therefore roundabout on Mercator charts). Intended primarily as an airline-pilot's tool, it is mildly time-consuming, requiring the user to determine the closest airport to each city in order to calculate distances. For this reason it is also somewhat imprecise, although sufficiently accurate relative to the great distances involved, and can be made even more so by using latitudes and longitudes. Obviously, once these distances are known, dividing by a typical Navy efficient-transit speed of sixteen knots can enable a user to calculate travel times to any point on the globe.



## Cost References

On the other hand, quantifying the daily operating costs of a deployed naval warship has proven relatively difficult. While a variety of military, other government, academic, and think-tank sources cite efforts by *acquisition* professionals within the Departments of Defense and the Navy to amortize costs over time (using “steaming days” as a metric), few if any sources state authoritatively the daily *operating* costs of a warship. Exhaustive searches of statistical-data warehouses such as the General Accounting Office (GAO) provide no hard data on daily ship operating expenses. The Navy Budget offers considerable detail in terms of annual costs, quarterly and monthly underway time, fuel consumption, etc. (2004 and 2007 reports accessed via Global Security website, 20 November 2007). Despite the extraordinary level of detail concerning this type of information, it is not a precise tool for estimating daily expenses, however, because it deals in terms of “ships” without regard to class. Clearly, the disproportionate vastness and small numbers of aircraft carriers and large-deck amphibious ships, as well as the fact that nuclear carriers and submarines calculate fuel expenses in terms of costly recoring overhauls rather than constant oil consumption, distort the overall data in such a way that it cannot easily be reduced to per-hull figures. The Congressional Budget Office website (accessed 20 November 2007) alludes to costs per steaming day, but only in the sense of maintenance requirements aggravated by GWOT-related OPTEMPO increases.

The most accessible government source of data regarding warship operating costs is Australia’s Manual of Costing, Charging and Cost Recovery. The Manual states that it “. . . is a tool developed solely for internal use by the Department of Defence in support

of Defence initiatives and in meeting statutory cost-recovery requirements. . . . [and] does not provide actual cost data,” cautioning users to seek such specifics from the appropriate authorities. In other words, it is a planning tool used to develop cost projections rather than a source of up-to-date, detailed information. Nevertheless, it does provide more in terms of ship class-specific cost data than available USN or DOD publications and reports. The Institute for Defense Analyses (IDA) website (accessed 20 November 2007) includes an “Advanced User Training” slideshow for its Contingency Operations Support Tool (COST) analysis program, presented 12-14 October 2005, which includes a slide listing daily operating expenses for various warships, “[d]eveloped from Service-provided cost factors”. The inclusion of a ship class (DDG-993) decommissioned in the mid-90’s indicates that this data may not be current, although the 50% cost differential between DDG-993 and the very-similar DD-963 indicate a possibility that IDA used the most recent data available for each class (using figures available in September 2002, the date listed for equation updates in the presentation, for DD-963), without correcting for inflation. The GAO report Defense Management: Processes to Estimate and Track Equipment Reconstitution Costs Can Be Improved points to a flaw in the COST model, whereby “reconstitution” expenses (presumably the increased maintenance and training costs incurred by deploying a unit) can be distorted by counting certain costs twice. (2). For research purposes, however, only OPTEMPO costs will be used, circumventing this issue.

#### Government Websites and Documents

This material is invaluable for answering questions of policy, being essentially (for this purpose) primary-source material from the originators. Fortunately, this

information is consolidated in a relatively small number of websites and printed publications.

#### Military Interoperability

The Australian Department of Defence website “Interoperability Documents” section contains a series of documents concerning interoperability issues. USPACOM and the Australian Chief of the Defence Force compiled this comprehensive analysis for review by both countries’ Ministers / Secretaries of Defense.

#### U.S. Strategy

All major national strategy documents are available in the C200 Strategic Studies National Strategy Documents reader. Amplifying theater policy guidance is available on numbered-fleet and regional command websites. The CRS website offers “Congressional Research Reports for the People”, including dozens of documented, concise, matter-of-fact reports regarding issues of naval, budgetary, and strategic interest.

#### Australian Strategy and the U.S. Relationship

A study of Australian strategy and politics will help establish the possibility (or impossibility) of basing arrangements, and the conditions under which they might be feasible. The “Publications” section of the aforementioned Defence site offers links to most major Australian policy documents. Amplifying guidance, and the Defence establishment’s interpretation of higher direction, is provided in another subsection of the site, dedicated to the Minister of Defence’s collected speeches.

## Regional Outlooks and Strategic Considerations

An important work for the study of broader regional interests include the LWSC Working Paper The Prospects for Australian and Japanese Security Cooperation in a More Uncertain Asia-Pacific (Hoare, 2003). Colonel Hoare recommends closer cooperation between the two nations in peacekeeping and low-intensity conflict based upon Australia's experiences in East Timor. Defense Relations Between Australia and Indonesia in the Post-Cold War Era (2002), by National University of Singapore political-science professor Bilveer Singh, assesses past conflict between the two nations with a perspective on Australia differing significantly from the Western mainstream view. Clearly, the different lens through which Asian/South Pacific nations view both Australia and the U.S. must be a primary consideration in any major strategic decisions made concerning the region.

## Contrary Views

It is important in any serious academic study to investigate all perspectives on the topic of interest, particularly those which might contradict some of the author's ideas, goals, or assumptions. In The Future of the Australian-U.S. Security Relationship (2003), Australian professors and policy experts Rod Lyon and William T. Tow believe the alliance can continue to evolve in a positive direction, but question the feasibility of further basing concessions. Dora Alves of the National Defense University, in Anti-Nuclear Attitudes in New Zealand and Australia (1985), assesses New Zealand's withdrawal from the ANZUS treaty in the mid-eighties and identifies a similar current of thought among the Australian Left that must factor into any consideration of strengthened military cooperation between the two countries.

### Works of Particular Topical Relevance

Several theses and monographs approach the topic at hand more closely than any other works. *Command, Control, and Communications Interoperability Between the Australian and United States Armies: An Australian Perspective* (Faulkner, 1998) addresses interoperability in light of recent exercises and operations conducted by the two nations. Five recent SAMS monographs address Sea Basing, naval power projection, and prepositioning of afloat Army materiel, while several others deal with modernizing U.S. and Australian units to provide responsive capabilities in a changing operational environment. Jonathan Gackle proposes integration of U.S. and Australian F/A-18 squadrons, although his vision can be seen as the converse of that presented in this paper—(temporarily) basing Australian pilots at the U.S. Naval Air Station in Iwakuni, Japan. Lacy H. Bartee, Jr. reaffirmed the Role of the U.S. Navy in defending Taiwan from China (2006), while William R. Puttmann, Jr. (1998) assesses the conflict between Australia's military alliance with the U.S. and its growing economic interdependency with China. One of the most pertinent references is a monograph by Michael Tate, *Is It In U.S. National Interests To Maintain Forward Deployed Military Forces In Asia?* (2001). Relying heavy on quantitative analyses of allied and threat military forces, as well as subjective qualitative analyses of threat capabilities and likelihoods of attack, Tate advocates reduction of the U.S. ground, but not naval, presence in the region.

Finally, the single most relevant and recent analysis of the topic of forward deployment of U.S. naval forces in the Pacific was written by Domingo B. Alinio. LCDR Alinio's thesis, entitled *Is the Current US Navy Pacific Basing Structure Adequate For the Twenty-First Century?* (2006) addresses that question in light of the potential

Chinese threat. He believes current FDNF forces will be adequate through 2016, but suggests augmenting forward-deployed forces to forestall the future threat (iii). He mentions Australia in passing as one of several potential host nations (83), but goes on to state, “because of the longtime special relationship with the US and its proven strategic location,” his preference for the Phillipines. (83)

### Summary

Current literature on U.S.-Australian relations includes policy experts such as Thomas-Durell Young, Alan Ryan, William Tow, John Dorrance, and Rod Lyon, most of whom are Australian. The state of the literature indicates a number of key trends, including conflicts in Australian policy thinking:

1. Between Asian- and an American-focused foreign policy, and
2. Between Chinese economic clout and military, cultural, and strategic interests shared with America.
3. Finally, American Nuclear weapons and propulsion remain contentious issues for Australians and especially for neighboring New Zealanders.

Most analysts seem to agree that all concerned are best served by a relationship that exhibits most or all of the following factors:

1. An ongoing Australian policy of continuing partnership with the United States, while asserting its own strategic independence;
2. A continued strong U.S. naval presence in the region; and
3. A transition from bilateral to multilateral arrangements for collective defense in the region.

This study will contribute to the corpus of existing literature by examining one means to those ends, the strengthening of U.S. naval power in the region and of Australian-U.S. ties through forward basing of American warships in Australia. Chapter Three will build upon this chapter, outlining research methods that tie the resources outlined above into the research questions presented in Chapter One.

## CHAPTER 3

### RESEARCH METHODOLOGY

Addressing the numerous subsidiary questions (outlined in Chapter One) underlying the feasibility, advantages, and disadvantages of basing U.S. naval forces in Australia requires a flexible, multi-axis approach. The essential tasks, in order, are to establish basic political viability, analyze the physical (natural and infrastructure) and human geography of Australia, and establish the criteria under which USN forward deployment to Australia may be possible. It is then possible to analyze in depth the potential advantages and disadvantages of such a strategy from the standpoint of both nations and other regional powers. In order to address this broad range of issues, the following strategies constitute the majority of the research: basic quantitative operations analysis; historical analysis tracing the background of the U.S.-Australia alliance and its evolution; and qualitative content analysis of academic and military research works, treaties, government policies and speeches, and news / current events. This chapter, outlining the various research methods by which the sources reviewed in Chapter Two address the questions raised in Chapter One, is therefore the pivotal link to Chapters Four and Five, Analysis and Conclusions, and constitutes the pattern or framework of the thesis.

#### Foundations

##### Analytical Geography

Basic physical confirmation of the viability of U.S. naval basing in Australia will rest simply on an analysis of major Australian ports with regard to hydrography (whether



they can accommodate U.S. warships) and infrastructure (whether they can support ships via rail, airports, and major highway networks). Tools for this area of research include mapping software, geographical survey websites, nautical charts (paper or electronic), factbooks and almanacs, and websites run by government agencies and non-governmental organizations. Graphical tools such as charts, maps, and overhead imagery generally illustrate this type of data more clearly than mere words, and lend themselves to both a simpler and more in-depth analysis.

### Operational Cost-Benefit Analysis

Assessment of the cost feasibility and the potential return on investment for forward naval basing is largely a matter of relative quantitative analysis. The Naval Vessel Register and the Navy's website will provide foundational information for this type of analysis, such as the number of ships and information about their employment. Again, nautical charts (depicting the whole theater) will be valuable tools for answering these questions, as will electronic distance tools. The key enabling metric in this process will be "Response Ratio" (cf. Glossary), and the end product will demonstrate whether (and in what time frame) Response Ratio improvements may offset infrastructure development costs.

In the absence of USN budget documents demonstrating the necessary level of fidelity (i.e. cost breakdown by ship class), interpolation based upon other sources is required. The Institution for Defense Analyses website uses a "service-provided cost factor" of \$22,000 per steaming day for a deployed ARLEIGH BURKE-class destroyer, and states its equations were last updated in September 2002. The Inflation Calculator website provides a figure of 11.83% from that month through January 2007 (the most

recent date usable with the calculator) and lists the current rate as 2.75% (Accessed 20 November 2007). Thus, the total rate correction factor to be applied is 114.9, meaning that (holding all factors equal), daily DDG operating costs in today's dollars would be \$25279.17. Obviously, all other factors are not equal, as fuel prices have escalated at a far greater rate than inflation. In addition, the listed "reconstitution costs" will not be used owing to an accounting error identified by the GAO (as discussed in Chapter Two). These two factors will lead initial cost calculations to err on the side of fewer wasted dollars for US-based ships, with reference to per-deployment return on investment costs, although this will be partially offset by further consideration of the life-cycle returns offered by FDNF ships.

The Australian Department of Defence uses a planning factor of 52,224 July 2000 Australian Dollars per deployed day for a Guided Missile Destroyer (The Manual of Costing, Charging and Cost Recovery, Part Two: Schedule of Rates and Charges, 32). The Currency Converter website equates this to \$46145.12 US (Accessed 20 November 2007). The Inflation Calculator website shows 17.14% between July 2000 and January 2007 (Accessed 20 November 2007), for a total correction factor of 120.36 through the end of the year. The equivalent cost is therefore \$55540.89 in today's US dollars. While mixing currency conversions and inflation corrections is an inexact science, the fact that the US and Australia use different classes of DDG means that no direct comparison can ever be perfectly accurate. Nevertheless, the large disparity between the Australian and IDA figures is beyond any reasonable margin of error, leading to several possibilities. Either the Royal Australian Navy actually projects that it will spend 2.2 times as much per (smaller) ship per day as the USN, the IDA figures require inclusion of the

“reconstitution” figure to accurately reflect total costs, or the IDA number represents only the differential between routine costs and the rigors of deployment. For purposes of analysis, \$40,000, or slightly under half the midpoint between the two figures, will be used. Together with mileage factors, this will illustrate the cost of naval transits and the potential cost savings for forward deployment. The final outcome of this process will not be a detailed budgetary analysis, but a set of cost parameters illustrating the infrastructure-development price threshold that could be offset by the potential transit-cost savings of basing in Australia.

### Strategic Analysis

Following the hard, quantitative analysis determining the feasibility of forward deployment to Australia, the challenge will be to establish the strategic benefits (and potential drawbacks) of such a policy. If the feasibility in terms of political viability and simple numbers is established, emphasis will shift increasingly to the broader strategic advantages and consequences of such a partnership, assessing all the regional nations and organizations involved. This analysis will necessarily include the domestic political aspects for all major players, a critical factor in the international relations of democratic states. Assessment of strategic consequences will begin with an overview the historical foundations of the alliance. The bulk of the assessment depends largely upon reference to national policy documents, and U.S. and Australian individual and partnership goals gleaned from policy documents and web-based resources. Secondary academic sources illustrate the reasoning behind the policies and provide examples of their implementation, as well as incorporating the perspectives of other regional powers.

## Historical Foundations and Policy Analysis

Since the United States and Australia have a long history of strategic and military cooperation and there is historical precedent for basing U.S. ships in Australia, historical analysis is an important aspect of assessing the present and future relationship between the two nations. This analysis sets the foundations for past and present cooperation, and illuminates trends that may shape future relations. Of particular importance is the history of the ANZUS Treaty and its evolution through the Cold War and beyond, to the present-day understanding of ANZUS as a pattern for global cooperation, rather than merely an Asia-Pacific defense pact. The evolution of the security policies of the two nations—Australia's strategic vision and U.S. Pacific and naval policy—is traceable through public policy declarations, publications, and papers as well as the study of events displaying these policies in action.

## Internal-Political Analysis

Domestic political assessment (focusing primarily on Australia) is a considerable challenge, but crucial due to the democratic process that would need to precede a policy change of this magnitude. Like foreign-policy analysis, this area of research will proceed largely from historical and academic assessments, as well as inferences drawn from current and recent-historical policy documents and speeches. News, periodicals, and poll data also round out the domestic political scene, and provide up-to-date information on potential future trends. Personal contact or correspondence with representatives of the Australian government can also provide valuable insights. The most important product of this research will be an analysis of the extent to which the alliance depends on the personal affinity of Prime Minister Howard and his party for the U.S., and how durable

this relationship may be in an ever-changing political environment. Nevertheless, it must be understood that this area of exploration is more complex and less accessible than most of the others, and will ultimately result only in general conclusions and informed opinions.

### Military-to-Military Analysis

Due to the relative wealth of information on the subject of military interaction and cooperation between the U.S. and Australia, and the greater familiarity of the subject, this area can be explored in both greater breadth and greater depth. Key themes include joint training, communications, weapons-systems procurement, logistical and tactical cooperation. Primary resources for this area of study include history (with a focus on recent cooperation in OEF / OIF), academic works, and especially the Australian – U.S. Interoperability Studies.

### Geopolitical Analysis

Assessing the political-strategic consequences of forward basing in Australia, especially as regards the reactions of other regional powers, is another complex challenge. Discerning the reactions of allies and neutrals may be a simple matter of consulting their strategy and policy documents and the pronouncements of their leaders, but China and especially North Korea are much more opaque. A combination of existing strategic studies with the past reactions of those nations' leaders will provide the best possible approximation to their future decisions. Some assumptions will also need to be made regarding overall trends beyond the reach of national decision-makers.

The strategic, political, and military environment between Australia and the U.S., as well as the challenges confronting both nations in the Pacific theater of operations, continue to evolve. Particularly due to the dynamics of the Global War on Terror in which both nations are currently involved, close attention to current events—both the course of the GWOT and scheduled political events such as summits and negotiations—merit close attention. News and commentary, not only mass media products but also periodic reports governmental and other organizations focused on international relations, are critical resources for establishing trends and tracking the competing interests of all interested nations.

#### Methodology Limitations and Delimitations

The nature of this topic does not lend itself to the use of surveys and questionnaires within the time and resource constraints of an MMAS thesis. It would be difficult or impossible for any researcher to survey all the past or present political and military leaders positioned to shape the alliance. Furthermore, in light of term limits, military rotation policies, and other factors in both countries, no survey could predict with any certainty the future policy of either without first predicting its future political-military hierarchy, then questioning all those involved. Finally, the democratic nature of both governments, the notorious fickleness of public opinion, and the difficulty (particularly for an amateur researcher) of assembling a sufficiently representative sample make it impossible to accurately survey the electorate or general military ranks of either nation. These limitations do not, however, completely exclude the use of existing data derived from surveys and questionnaires, documented in peer-reviewed academic works or reputable, well-documented websites. On the contrary, this type of information may

prove quite valuable in presenting the views of the populations, military forces, political leaders, and others whose opinions will ultimately shape the future of U.S.-Australian strategic relationship.

### Chapter Conclusions

The issue of forward-basing of U.S. naval forces in Australia involves a complex array of questions, some objective and technical in nature, and others requiring subjective critical analysis of others' opinions, interests, and desires. Although the overarching question is not one that has received a great deal of attention, at least in recent years, the resources exist to answer most of the secondary questions. Arriving at a meaningful answer to the overall strategic question, and a full appreciation for all the second- and third-order effects, will require careful synthesis of information gleaned through a variety of techniques involving maps and formulas, historical research, policy analysis, and careful attention to current events and breaking developments. Chapter Four will address analysis of this data. It begins with subchapters on analytical geography and financial considerations, followed by sections addressing strategic analysis in terms of history, Australian internal politics, military interoperability, and geopolitical considerations in the broader context of the Pacific theater.

## CHAPTER 4

### ANALYSIS

This chapter enumerates and analyzes the data gathered during research on the feasibility, as well as the strategic advantages and disadvantages, of forward naval basing in Australia. It begins with a section on the geographic and financial foundations underpinning the essential viability of the thesis. The next section addresses the strategic context of the basing issue, beginning with historical precedents and developments. Relevant Australian internal-political trends are next, followed by military interoperability. Finally, the preponderance of the chapter is devoted to analyzing potential geopolitical effects of forward basing, including the future of the ANZUS alliance itself as well as the likely views of other allied, neutral, and potential threat nations in the region. This will lead into Chapter Five, outlining conclusions and recommendations.

#### Foundations

Clearly, if Australia cannot physically accommodate current U.S. warships, or if the investment involved in so doing is not cost-effective in terms of saved steaming days (versus ships based on the U.S. West Coast), the forward basing issue is a moot point. This subchapter is a basic feasibility study beginning with an assessment of the physical and human geography of Australia with a view to selecting viable basing sites. From an analysis of the continent's hydrography, infrastructure, and pertinent demographics, the study will broaden into a geographical overview of the PACOM and CENTCOM areas of responsibility. This section will identify regional focus areas or possible hot spots, and



relate them in terms of proximity to potential Australian-USN naval bases. This will lead into a discussion of transit speeds, travel distance, and average cost per day for U.S. naval combatants. These figures, in turn, will facilitate estimates of overall transit costs per ship per deployment from American and Australian ports, which can then be compared to calculate savings for the shorter transit. The end result of this process will be to determine a threshold point at which those per-transit savings, plus long-term efficiencies resulting from the higher Response Ratio of FDNF ships, can bring a credible return on infrastructure development. Thus, this section will help establish factual criteria under which USN forward deployment to Australia may be possible.

### Analytical Geography

Basic physical confirmation of the viability of U.S. naval basing in Australia will consist of an analysis of major Australian ports with regard to hydrography (whether they can accommodate U.S. warships) and infrastructure (whether they can support ships via rail, airports, and major highway networks). The research will also illustrate whether the Australian population possess the skills and resources to support a number of large warships and their constant demand for fuel, parts, power, and increasingly technical repairs. Placing the continent in the broader context of the theater, the next logical step will be an overview of areas where U.S. naval presence might promote stability, defuse regional conflicts, defeat potential adversaries, or deter smuggling, terror, and piracy. Transit distance and time to these decisive points will provide a final discriminating factor for comparing the various ports, and lead in to a comparison with the principal contenders against the largest current Pacific Fleet surface-force homeport, San Diego, California.

## Australia and its Maritime Environment

### Ports—Draft Considerations

For purposes of analysis, it is desirable that a potential homeport facilitate visits by a NIMITZ-class aircraft carrier (12.5m draft, per USNI Military Periscope accessed 18 October 2007). Potential Australian nuclear sensitivities, port development costs, and the U.S. political inertia involved in carrier basing changes place permanent homeporting of a flat-top in Australia beyond the scope of this discussion. On the other hand, it is essential that any potential home port accommodate the principal U.S. surface combatants, the ARLEIGH BURKE-class guided missile destroyer and TICONDEROGA-class cruiser (9.9m and 10.5m respectively, per Military Periscope, 13 October 2007). Allowing a typical safety planning factor of .5m, a channel / pierside depth of 13m will permit use by carriers, and 11m by combatants. A 13m draft would also accommodate fast combat support ships, facilitating logistical sustainability of oil-fired combatants, although smaller refueling ships have relatively shallow drafts, and can moor in any port usable by warships. Australian Customs (website accessed 18 October 2007, except where noted) lists six ports—Darwin, Hobart, Burnie, Bunbury, Fremantle (Fremantle Ports webpage accessed 21 October 2007), and Townsville (Townsville Port website accessed 13 November 2007)—whose depth can accommodate cruisers, and 10—Brisbane (Port of Brisbane webpage accessed 21 October 2007), Newcastle, Port Kembla/Wollongong, Sydney, Port Lincoln (Boston Bay), Adelaide, Melbourne, Portland, Port Hedland, and Westernport—that could also accommodate carriers. Cairns, Launceston, Devonport, Geelong, and Broome are marginally below warship draft requirements, and might be dredged to accommodate cruisers and destroyers if other

factors indicate potential for hosting naval bases. Any of the cruiser-class ports could, of course, also be dredged to accommodate carriers.

#### Ports—Environmental and Other Limitations

The Queensland ports of Brisbane, Townsville, and Cairns are located adjacent to “Particularly Sensitive Areas” of the maritime environment: the Torres Strait and Great Barrier Reef (Australian Maritime Safety Agency webpage, accessed 21 October 2007). Merely transiting these waters requires extreme caution and pilots familiar with the local environment. Clearly, routine warship operations such as full-power engineering trials, anti-submarine exercises involving active sonar, and live gunnery practice are incompatible with this critically fragile ecosystem. Figure 1 shows the Great Barrier Reef area, located off the northern two thirds (approximately) of Australia’s eastern coast. Extending approximately 100 kilometers seaward of Queensland’s ports, it would dictate longer-than-average transits to potential training areas. It would also pose ongoing risks of environmental damage, protests, and controversy during those transits, but would not rule out those ports if other factors prove favorable.



Figure 1. Great Barrier Reef.

Source: Great Barrier Reef webpage, accessed 13 November 2007

The Reef and the Torres Strait also lie along the most direct route connecting the Victoria, New South Wales, and Tasmanian ports—Hobart, Burnie, Launceston, Devonport, Newcastle, Geelong, Port Kembla/Wollongong, Western Port, Sydney, and Melbourne—to potential crisis areas such as Taiwan and North Korea. Thus, a high-speed transit might be delayed either by a careful transit of the reef and strait region, or a diversion eastward around the Solomon Islands. Basing naval ships in the metropolitan ports of Melbourne and Sydney might also prove difficult due to their already-burgeoning merchant traffic. These ports handle annual throughputs of 1.4 million and one million

Twenty-foot [shipping container] Equivalent Units (TEU) respectively (Navy League of Australia website accessed 22 October 2007).

Table 1. Homeport Suitability Summary

Name of Port	Draft Category	Major Airport	Road Network	Other Factors
Brisbane	Carrier	1.5	Ample	Environmental
Newcastle	Carrier	9.5	Ample	Possible Environmental Near RAAF Base Williamtown
Port Kembla / Wollongong	Carrier	48.5	Ample	Possible Environmental Growing and diversifying bulk-cargo port (Port Kembla site accessed 23 October 2007)
Sydney	Carrier	1	Ample	Possible Environmental Merchant/Urban Congestion
Port Lincoln (Boston Bay)	Carrier	156 (str. line)	Ample	Remote rural port Extremely long drive to airport Limited water supply (City of Port Lincoln website accessed 23 October 2007)
Adelaide	Carrier	13	Ample	Major defense / commercial / industrial center including naval shipbuilding (City Council site accessed 22 Oct 07, Port Adelaide site accessed 23 Oct 07)
Melbourne	Carrier	10	Ample	Possible Environmental Merchant/Urban Congestion
Portland	Carrier	183	Ample	Extremely long drive to airport Remote rural port
Port Hedland	Carrier	5.5	Ample	Highest annual tonnage (100m, primarily iron ore) of all Australian ports. Population only 14000. Some silting of harbor. (Port Hedland site accessed 23 October 2007)
Westernport	Carrier	52	Adequate	Possible Environmental Active anti-development NGO (Western Port Action Group website accessed 23 October 07)
Darwin	Cruiser	3	Ample	Near RAAF Base
Hobart	Cruiser	8	Ample	Possible Environmental Trade, tech, and shipbuilding center (Hobart City site, 23 October 2007)

Homeport Suitability Summary Table (continued)

Name of Port	Draft Category	Major Airport	Road Network	Other Factors
Burnie	Cruiser	69	Adequate	Possible Environmental Australia's largest container port (The City of Burnie site accessed 23 October 2007)
Bunbury	Cruiser	96	Adequate	
Townsville	Cruiser	4.5	Ample	Environmental Only "outbound" channel is deep enough to accommodate warships (Townsville Port website 13 November 2007)
Fremantle	Cruiser	16	Ample	Hosted approximately 170 US, British, and Dutch submarines in WW II ("Oz at War" website accessed 23 October 2007)
Cairns	Marginal	3.5	Ample	Environmental
Launceston	Marginal	9	Ample	Possible Environmental Long River Transit
Devonport	Marginal	43	Ample	Possible Environmental
Geelong	Marginal	37	Ample	Possible Environmental Water supply issues (Geelong Australia site 23 October 2007)
Broome	Marginal	1	Ample	Relatively Remote Sparsely Populated

Source: Airports and Road Networks per Google Earth, accessed 21-23 October 2007

Color Code:



Strong potential for development as a USN homeport



Potential USN homeport (with substantial drawbacks and/or investment required)



Unlikely candidate for USN homeport due to insurmountable or multiple obstacles involved

Major Airport Distance, port to nearest major airport (NM)

## Human geography

“Australia has one of the strongest economies in the world.” (Countrywatch accessed 18 November 2007). Its adult literacy rate (99% per CIA World Factbook accessed 18 October 2007) and percentage of high-school (equivalent) graduates (83 % in 2004, per “Australian Youth Facts and Stats” website accessed 21 October 2007) compare equitably with the United States’s 99% (CIA World Factbook accessed 18 October 2007) and 85% in 2004 (US Government Info website accessed 21 October 2007). Australia also has a strong industrial base. 21.2% of the country’s population is employed in industry, including such pertinent fields as mining, industrial and transportation equipment, food processing, chemicals, and steel (CIA World Factbook accessed 18 October 2007). As of 2006, 1.68 million students are enrolled in vocational-technical education programs (“Australian Youth Facts and Stats” website accessed 21 October 2007). Most importantly for the purposes of this study, Australia is by virtue of its geography a maritime nation. Its merchant fleet comprises 52 ships of 1000 Gross Registered Tons (GRT) or greater, totaling 1,322,527 GRT, as compared with 446 large U.S. ships totaling 10,308,428 GRT (CIA World Factbook accessed 18 October 2007). Thus, Australia, with 1/15<sup>th</sup> the population of the U.S., has a merchant marine approximately 1/8<sup>th</sup> the size of America’s. Clearly, a nation possessing combining Australia’s oceanic geography and seafaring tradition, with a strong industrial base founded on educational traditions and plentiful natural resources, can absorb—and benefit from—an increased demand for maritime support services.



### Areas of Responsibility

The following chart (Figure 2) depicts the CENTCOM and WESTPAC AORs. The two theaters differ greatly in terms of geography. The CENTCOM / Fifth Fleet area is relatively compact relative to the distance from either Australia or the western coast of the U.S. Consequently, its eastern boundary can serve as a simplified representation of the AOR for purposes of comparing transit distances and times. The WESTPAC theater on the other hand is vast, with potential crisis areas spread throughout not only the western Pacific Ocean itself, but also much of the Indian Ocean. It will be necessary, therefore, to relate these hot spots geometrically in order to focus analysis on the regions and routes where a naval response might be required.

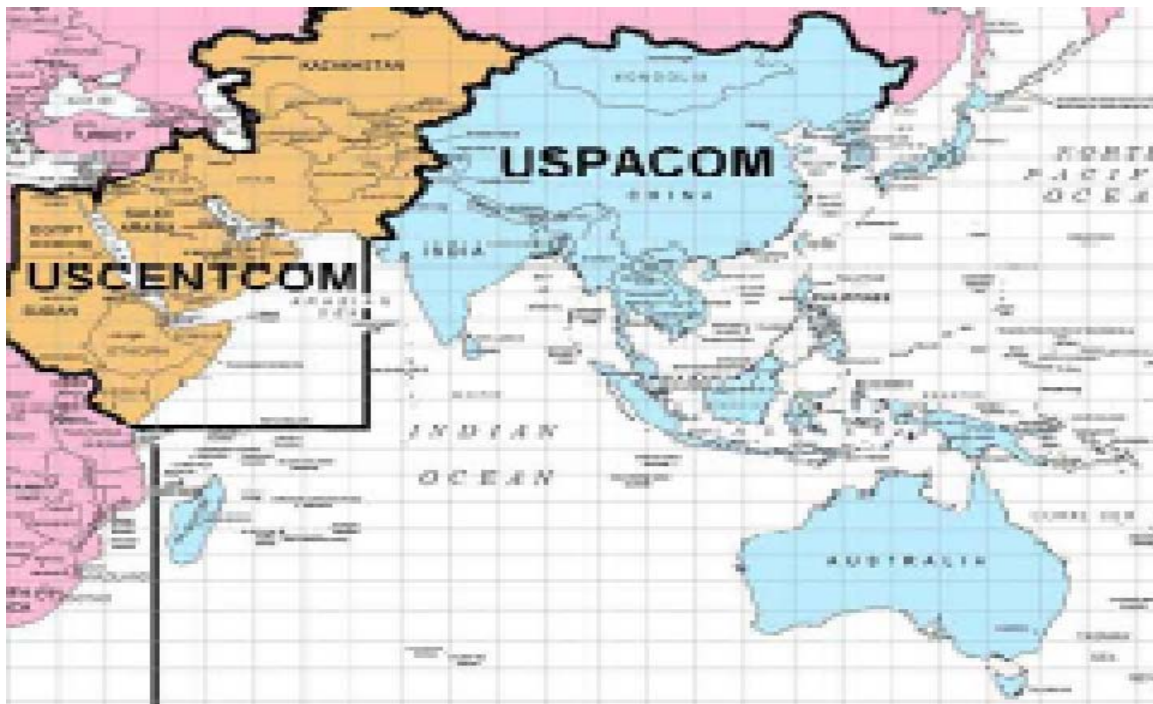


Figure 2. CENTCOM and PACOM (western portion) Areas of Responsibility  
Source: Defense Link website (accessed 18 October 2007), cropped and expanded with aspect ratio locked.

Western Pacific (WESTPAC), Commander, U.S. Seventh Fleet

For the purposes of calculating time and distance factors governing the responsiveness of naval forces and their associated costs, a strategic epicenter between the following regional focus areas will be used to represent the theater as a whole (latitudes and longitudes approximated based on Google Earth, accessed 18 October 2007, except as noted):

Taiwan Strait (TS), represented for Great Circle calculation purposes by Magong Airbase (MZG), 23°34'07"N, 119°37'42"E

Kashmir (KM, represented by seaward terminus of India-Pakistan border), 23°45'N, 68°E. For purposes of Great Circle route calculation, Karachi Quaid-e-Azam / Jinnah International Airport (KHI), 24°54'24"N, 67°09'39"E will represent this point.

Yellow Sea terminus of Korean Demilitarized Zone (DMZ), represented by Incheon International Airport (ICN), 37°28'09"N, 126°27'02"E

Spratly Islands (SI) 8°38'N, 111°55'E (Spratly Island proper per Wikipedia, accessed 18 October 2007)

Singapore, narrows of Strait of Malacca (SM) 1°17'N, 103°51'E (Singapore City per Wikipedia, accessed 18 October 2007). The Strait is not only a gateway for one third of the world's commerce and half its oil, but also the scene of 100 "piratical acts" annually (Military Periscope accessed 18 November 2007).

East Timor (ET) 8°34'S, 125°34'E (Dili per Wikipedia, accessed 18 October 2007).

Based on vector summation of the above regional hotspots, the epicenter of the theater (known hereinafter as "WESTPAC" or WP) is located at 14°18'N, 109°11'E on

the east coast of southern Vietnam. For Great Circle calculation purposes, it will be represented by Phu Cat / Qui Non (UIH) Airport, 13°46'N, 109°13'E.

Arabian Gulf / Middle East, Commander, U.S. Fifth Fleet

In like manner, Diego Garcia Military Airport (NKW), 7°18'48"S, 72°24'40"E, the closest airport to the southeast corner of the boundary line between Seventh and Fifth Fleet AORs (5°S, 68°E) will represent the Fifth Fleet AOR. This point lies roughly along the westbound routes originating in Australia, Hawaii, or the U.S. West Coast alike. Since it is 345 miles from the actual in-chop point (Google Earth accessed 21 November 2007), 345 miles and one day's steaming will be added to all Great Circle transits to this AOR.

#### Other Reference Points

The Western Pacific theater is dotted with numerous islands, most significantly those of the Malay Archipelago. Consequently, any serious comparison of transit times and distances must not oversimplify matters through the use of physically impossible direct transoceanic routes, but should instead take into account the routes a ship must take through the various archipelagic straits. On the other hand, it is not necessary for purposes of this strategic-level analysis to plot navigationally precise routes skirting every reef and shoal. Instead, straight lines connecting waypoints (key straits, major hubs, or other convenient nodes) will represent actual transits. A uniform correction factor of 125%, applied to all straight-line transit times and distances, will represent the art of piloting actual ships around whatever capes, islands, and shallows might lie along these simplified routes. A factor of 110% will be applied to great-circle transits, in order

to account for the lesser degree of piloting required on the open ocean, but also to take into account delays for periodic refueling via Underway Replenishment (UNREP). The following points (rounded where possible to the nearest whole degree) will be used for purposes of calculation:

MS. Misima Island Airport (in the Solomon Sea, east of the main island of New Guinea), 10°41'21"S, 152°50'18"E

MO. Moluccas (west of the island of New Guinea), represented by Sorong Jefman airport (SOQ), 0°55'35"S, 131°07'16" on Kaboe-Eilanden (west of the main island of New Guinea).

TO. Torres Strait (separates Australia from New Guinea), 10°S, 142°E

SS. Sunda Strait (separating Java and Sumatra), represented for Great Circle calculation purposes by Soekarno Hatta International Airport (CGK), 6°07'32"S, 106°39'21"E

PW. North of Pulau We (northern cape of Sumatra), 6°N, 95°E

MD. Maldives (off southern point of India), represented for Great Circle calculation purposes by Trivandrum / Thiruvananthapuram International Airport (TRV), 8°28'56"N, 76°55'12"E.

NW. Northwest cape of Australia, represented by Learmouth Airport (LEA), 22°14'08"S, 114°05'19"E.

FI. Fraser Island, off Australia's east coast, 25°S, 154°E

Results of this analysis are summarized in Appendix A.

#### Time-Distance Summary

The complex geography of the Western Pacific region, particularly the congestion of the Malay Archipelago and the size of Australia itself, imposes its own “tyranny of distance”. Due to the necessity of circumventing the continent and navigating the various straits passing through Indonesia and the Philippines, numerous ports in the southern part of Australia offer no significant advantage over Pearl Harbor in terms of response to most potential trouble spots in the region. Newcastle, Hobart, and Port Kembla / Wollongong are all ports in this category, which do however offer strong potential for supporting naval warships. All of the Australian ports do compare very favorably with both US ports in terms of proximity to the Arabian Gulf. All of the ports in question also compare quite favorably with San Diego in terms of proximity to both theaters. A favorable result of the process has been the demonstration that, should environmental considerations dictate an easterly course to avoid both the Great Barrier Reef and the Torres Strait, response times from ports in Queensland, Victoria, New South Wales, and Tasmania would not suffer significant adverse effects. Townsville in particular, despite “possible environmental” issues cited in Figure 2, offers significant advantages in terms of response time. Adelaide, while (owing to its location in the southern center of the continent) is only marginally superior to Pearl Harbor in terms of distance to WESTPAC, benefits from a virtually unobstructed seaway all the way to the CENTCOM theater. Overall, in terms of transit routes, Darwin and all the Western Australia ports offer the optimum combination of responsiveness to both theaters.

### Geography Conclusions

Australia’s talented and dynamic population, its resources and infrastructure, offer strong potential to support US warships. The US Navy, conversely, could offer

significant capital and employment to further Australia's healthy maritime sector. Its location makes it a generally desirable location for naval bases responsive to Seventh Fleet requirements, while its size and surroundings make certain ports less practical than others.

Among the ports with the shortest transit times to potential crisis areas, some suffer other drawbacks that make them less likely prospects for naval development. Port Hedland (the closest of all) also offers a deep channel that could accommodate carriers, and a good transportation network. Unfortunately, it is a very small town (population 14,000), which would not only require substantial development to accommodate a destroyer squadron, but could also quickly come to feel overwhelmed by the presence of thousands of foreign sailors. Broome is also well-situated, but is likewise remote and sparsely populated; furthermore, its channel and harbor would have to be dredged to accommodate surface combatants. Bunbury can accommodate warships (but not carriers). Again, it is not a large town, and is nearly 100 miles from the nearest major airport. Townsville offers a good compromise of proximity to both theaters and seems to offer good potential as a homeport, with the only possible significant drawback being its location in the middle of the Great Barrier Reef.

The ports that offer the most significant advantages in terms of both supportability and proximity to both theaters are:

1. The growing port of Darwin, capital of the Northern Territory. Darwin suffers from no significant limitations; its tidal range exceeds that of any major US port, but port and Marine Safety personnel are experienced in dealing with tidal issues (Port of Darwin page accessed 21 November 2007). The tidal range may even work to ships' advantage,

since dredging a berth and surrounding basin to accommodate a carrier's draft could allow visits by these ships (entering and leaving port at high tide) without the necessity of maintaining a permanent deepwater channel. Similarly, Darwin's character and location appears to be ideal. It is large enough (in contrast with some of the other ports, which are tiny single-industry villages) to accommodate and interest sailors. It is also interconnected with shipping, transportation, and industry, yet it is sufficiently far from the country's major population centers to minimize the national impact of friction with local citizens, as well as clashes with the political fringe.

2. Fremantle, which hosted a sizable U.S. and international military presence in WWII ("Oz at War" website accessed 23 October 2007). Today the area is home to HMAS STIRLING / Fleet Base West, Australia's largest naval facility (Global Security website accessed 29 November 2007). Nearby Henderson is home to Austal, designers of the trimaran hull used by the INDEPENDENCE-class Littoral Combat Ship (LCS) (Austal website accessed 23 November 2007).

3. The defense, industrial, and commercial center of Adelaide. Of the top three, this is the furthest from regional hotspots, but also the only port whose current depth can support visits by US aircraft carriers.

A detailed breakdown of route lengths and transit distances from each of the top Australian candidate homeports (with U.S. Homeports included for purposes of comparison) to potential crisis areas in the Seventh Fleet AOR is found in Appendix B.

### Cost-Benefit Analysis

In February 2006, the Navy proposed a future ship force structure of 313 ships, including . . . 88 cruisers and destroyers [and], 55 Littoral Combat Ships (LCSs). . . . Regarding the 313-ship proposal, some observers have questioned the Navy's

planned figures. . . . The Navy’s 30-year shipbuilding plan does not include enough ships to fully support all elements of the 313-ship fleet consistently over the long run. (O’Rourke CRS Force Structure and Shipbuilding Plans, 2)

Actually, while O’Rourke later provides more insight the Navy’s current state of affairs, the above statement—acknowledging as it does potential *future* shortfalls in naval ship construction—actually paints an unduly *optimistic* picture, since the Navy has already fallen well short of its estimates for its required number of ships. The following table illustrates the current state of the fleet:

Table 2. Current and Near-Future Ship Numbers

	FY 2006	FY 2007	FY 2008
Aircraft Carriers	12	11	11
Fleet Ballistic Missile Submarines	14	14	14
Guided Missile (SSGN) Submarines	4	4	4
Surface Combatants	101	105	111
Nuclear Attack Submarines	54	52	52
Amphibious Warfare Ships	33	31	32
Combat Logistics Ships	30	31	31
Mine Warfare Ships	16	14	14
Support Ships	16	17	17
<b>Battle Force Ships</b>	<b>280</b>	<b>279</b>	<b>286</b>

*Source:* 13 March 2007 Statement Of Admiral Robert F. Willard, Vice Chief of Naval Operations, before the House Armed Services Committee Subcommittee on Military Readiness, 13 March 2007, at House website (accessed 20 November 2007).

According to Table 2, the year 2007 represents the lowest ebb in recent history for USN ship numbers. The current force includes 22 TICONDEROGA-class cruisers (O’Rourke Aegis Report, CRS-1) and 52 ARLEIGH BURKE-class destroyers (Military Periscope website accessed 18 November 2007; Naval Vessel Register website accessed 28 November 2007), for a total of 74 major surface combatants. Existing small combatants include 31 OLIVER HAZARD PERRY-class frigates, nine of which are in a



Naval Reserve Force status (Naval Vessel Register website accessed 28 November 2007)—second-echelon ships with skeleton crews periodically augmented by drilling reservists. Also noteworthy is the fact that all USN “guided missile” frigates have divested their launchers, and are therefore “FFs” for all intents and purposes (Military Periscope website accessed 28 November 2007). Yet another fact of life for the aging frigate force is the occasional discovery, during scheduled major overhauls and inspections, of hull and machinery deterioration beyond economic repair, resulting in premature decommissioning. The slow growth rate for the surface force, expected (per Figure 4) to begin in FY 2008, assumes no ships will be decommissioned that year (Willard Testimony accessed on House Armed Services Committee website, 20 November 2007).

No LCSs, scheduled to replace the PERRYs, have yet been commissioned; although the first ship of the class is expected to be commissioned later this year (Military Periscope website, accessed 18 November 2007). Consequently, the need to “do more with less” is not merely a projection of future new-construction shortfalls, but a present-day reality reflecting the inadequacy of the surface fleet’s current inventory.

This dearth of resources makes it all the more critical to analyze the potential benefits that might justify the considerable expense required to develop a new naval base. In light of the Navy’s current platform constraints and demanding operating environment, this section will explore the extent to which forward basing in Australia can enable a given force to shoulder a larger share of the burden of maritime security in the WESTPAC theater. It is impossible to determine the extent to which politics, inter- and intra-service competition, and the challenge of investing for the future during a costly war

will shape long-term naval budget. In like manner, it is hardly feasible within the scope of this thesis to quantify and explore all the costs associated with shaping an underdeveloped or commercial port into a full-service naval homeport. Instead, this subchapter will provide cost thresholds relative to ship numbers, elapsed time, and requirements, within which it might be financially viable to do so at a reasonable return on the Navy's investment in infrastructure development.

As stated in NWP-1, Navy Strategic Concepts, "The homeporting of fleet units in overseas forward areas allows higher deployed force levels with fewer total assets. Overseas homeported units also provide more on station time than CONUS based forces due to greatly decreased transit time." (Accessed via Navy Department Library webpage, 20 November 2007, subpara. 4.1.2.4.2). The end products of this analysis will be a number of bottom-line statistics capturing efficiencies leveraged by forward deployment. First, the distance advantage an Australia-based ship enjoys in comparison with counterparts based in San Diego or Pearl Harbor, cross-referenced with typical transit speeds (nominally 16 knots, a speed of which all naval ships are capable, and a prudent compromise between forward progress and instantaneous fuel efficiency), has produced estimates of relative steaming days to regional crisis areas. These figures may then, in turn, be used to determine Response Ratio, or time on-scene divided by time deployed, a conceptual framework for comparing return on investment and a good indicator of the "more with less" factor today's surface navy requires.

#### Response Ratio Calculations

Out of a typical six-month deployment (183 days), a Pearl Harbor-based ship spends 30 days transiting to and from Point WESTPAC, for a Response Ratio of .84. It

spends another ten days, each way, en route to CENTCOM, for a total Ratio of .73. A San Diego-based ship will spend 26 days in transit each way, including its layover in Hawaii, offering Seventh Fleet a Response Ratio of .72, but will only spend 111 days of a Fifth Fleet deployment in the CENTCOM AOR—a Response Ratio of .61. As illustrated in Appendix A, certain Australian ports would offer few if any advantages over Pearl Harbor in terms of a traditional, six-month WESTPAC deployment. By contrast, however, even the most distant of these ports from the Arabian Gulf, Newcastle and Townsville, would offer a Response Ratio of .81—an 11.5% advantage. Most significantly, ships in the best-situated Australian ports would spend only eight and ten days, respectively, in transit to Point WESTPAC and Point CENTCOM, giving Response Ratios of .91 and .89. These ships, spending roughly 90% of their deployments actually meeting the needs of the theater commanders, enjoy performance advantages of 26.4% and 45.9% over their San Diego-based counterparts. Thus, even viewed from the limited perspective of a six-month deployment, an Australia-based ship can perform the work of one and a quarter to one and a half California-based vessels.

#### Utilization of Limited Steaming-Day Allotment

This becomes all the more significant in light of the Navy's decision to reduce steaming days per quarter from 39 to 36 for "peacetime OPTEMPO reduction due to continuing GWOT operations" (2007 Navy Budget accessed via Global Security website, 20 November 2007, 1B1B Page 5 of 9). In 2005, the figure was 56 days per quarter (2007 Navy Budget accessed via Global Security website, 20 November 2007, 1B1B Page 6 of 9). Clearly, if the Navy can only afford to allow a ship 72 days at sea out of a six-month deployment, the fact that CONUS-based ships deploying to the Western

Pacific squander 46 of those transiting to and from a homeport on the other side of the world is a significant drawback to strategic planners. That the same ships, if deployed to the Gulf, use up 66 of 72 days in transit is a budgeting nightmare. By contrast, as alluded to above, ships optimally homeported in Australia would only consume 16 and 20 days in transit to Point WESTPAC and Point CENTCOM respectively. It is, of course, highly unlikely that a ship spending three to four months in theater will only spend six or even 26 days of that period underway. The alternatives, however—"borrowing" days from other theaters closer to ship homeports, so as to further reduce historically-low steaming days worldwide, or exceeding Navy and Congressional mandates by a wide margin—are almost equally unpalatable.

#### Response Ratio and Transit Costs

Response Ratio may also be used as an efficiency factor in combination with historical data, in order to determine the expected paybacks in terms of daily operating-cost savings (fuel, repair parts, and costs associated with personnel) indexed over the course of a deployment. The daily cost estimate of \$40,000 per destroyer (see Chapter Three) can be used to provide an idea of return on investment. 29% of a West Coast-based Seventh Fleet ship's deployment is transit "overhead"; if he carries on to Fifth Fleet, the total fraction becomes 39%. The Navy is spending 46-66 precious steaming days' allotment (in addition to in-port costs for the two port visits in Hawaii, which do not contribute to the forward Fleet commanders' theater-engagement port visit schedule)—1.84 to 2.64 million dollars—to push water. A ship coming from Australia will spend 16-20 days in round-trip transit, costing \$640,000-\$800,000. Thus, if ships are

deployed for six-month periods from Australian homeports, they will save the Navy 1.2-1.84 million dollars in transit costs each time.

### Compound Efficiencies

It is possible to combine the above factors to capture the compound efficiency of forward-deployed ships. Without delving into the ever-changing and classified details of theater commanders' respective ship-presence requirements, it is nevertheless possible to analyze the per-ship presence requirements. Again using the six-month framework, each continuous ship requirement by the Fifth Fleet commander (i.e. 365 ship-days in theater) will necessitate 3.28 San Diego deployments (at 111 in-theater days per), but only 2.3 from Darwin (159 in-theater days). Transit losses from the San Diego ships will total \$8.68 million, while those from the Darwin deployments will amount to \$1.84 million—an overall savings of \$6.85 million. In like manner, the same one-ship presence requirement at Point WESTPAC would need 2.78 deployments from San Diego (at 131 in-theater days per). Darwin-based ships, on the other hand, would spend 165 days on scene for each deployment (again using Point WESTPAC to represent on-scene time), requiring only 2.2 deployments per year to meet the same requirement. This would save the Navy (\$5.12 million-\$1.41 million) = \$3,710,000 per year. This figure represents ships from both homeports responding to the widest array of in-theater challenges. Of course, in reality, the Darwin-based ship is a Seventh Fleet asset the moment it casts off its mooring lines, so all 183 days of a six-month deployment are spent in the Western Pacific theater. Viewed through this lens, it would only require an even two deployments per year from Australia to maintain a continuous ship presence, for an additional savings of \$128,000.

## Persistent Presence

The above calculations of operating expenses do not even take into account the substantial proportion of a ship's service life (both time between regular overhauls and overall lifespan) spent crossing empty expanses of ocean, the accelerated wear and tear associated with such transits, and the investment required to sustain the ship's most valuable (and costly) resource—the crew. An overview of the typical cycle ship crews undergo throughout the Fleet Readiness Training Plan (FRTTP) indicates potential for even greater responsiveness. Figure 3 illustrates the nominal FRTTP, depicting in broad terms the amount of time a average ship can be expected to spend in maintenance, workups, surge-ready status, and deployment:

Maintenance / Basic Phase 25 Weeks		Integrated Training Phase		Sustainment Training Phase	
Shipyards 9 Weeks	Unit-Level Training	Strike Group Exercises	Joint Exercises		Deployment
	Worst-Case Scenario Response				
	Independent Unit Ready for Tasking (RFT)				
	Maritime Security / Major Combat Operations Surge Ready				
	Major Combat Operations Ready				

Figure 3. Fleet Readiness Training Plan Notional Framework

*Source:* Simplified from SURFORTRAMAN Figure 1-1-1 based on information found on pages 1-4 – 1-6.

*Note 1:* The Maintenance Phase (shipyards availability) can take place at the beginning, end, or middle of the first 25 weeks of the cycle according to the needs of the ship and the Navy. Deployment can be scheduled at any time during the Sustainment Phase. They are shown at the beginning and end, respectively, to more clearly illustrate blocks of time available to operational commanders.

*Note 2:* The lengths of the Integrated and Sustainment phases are flexible and therefore undefined. Two-three months is a good estimate for integrated training, with the Sustainment phase encompassing the remainder (15-16 months) of the two-year notional cycle.

Notionally, a ship can be expected to spend six months of a nominal 24-month cycle deployed. According to the snapshot provided by Admiral Willard (13 March testimony accessed via House website 25 November 2007, page 5), however, 36% of the Navy was deployed that day. Today, the Navy website gives the same percentage (Accessed 28 November 2007). This is due to a variety of factors and demands associated with the GWOT, and for the foreseeable future it would be fair to assume that ships deploying for conventional deployments will do so one-third rather than one-fourth of the time. Unlike vessels based stateside, which provide no value to front-line commanders outside scheduled deployment windows, FDNF ships are capable theater assets for the full duration of their surge-ready period.

Once complete with Unit-Level Training (ULT), they are considered Independent Units Ready for Tasking (RFT). An RFT ship “may be tasked with independent operations (outside the CSG/ESG) in support of national tasking and/or homeland security.” (SURFORTRAMAN 1-5). Even during the basic work-ups associated with ULT, these ships provide presence as a force-in-being, virtually indistinguishable from fully trained and loaded combatants. In fact, an FDNF ship offers a limited emergency-surge response capability almost constantly, with the minor exception of time spent in major maintenance availabilities. These shipyard periods typically place the ship out of action for 9 weeks out of a nominal 24-month cycle (SURFORTRAMAN, 1-4), meaning each retains some degree of defensive capability for nearly 92% of the time. These ships, despite their lack of certification and low level of crew training, could conceivably be surged in a worst-case scenario (such as an invasion of Taiwan or South Korea, or a disaster involving Australia itself).

### Financial Conclusions: Meeting the Fleet Commander's Needs

“On any given day, about 50 percent of Seventh Fleet forces are deployed at sea throughout the area of responsibility,” (C7F website accessed 25 November 2007), which comports with the general Navy figure provided by ADM Willard (March 13 testimony accessed via House website 25 November 2007, 5) and the Navy website (46% of all ships underway on 28 November 2007). The site goes on to state that “A ‘snapshot’ composition of 7th Fleet on a typical day includes . . . 3-5 Aegis guided-missile cruisers [and] 5-10 destroyers and frigates” (C7F website accessed 25 November 2007). The site is unclear, however, as to whether this is the number of ships *underway* in the theater at any given time, or of those *present* overall. It would appear at first glance, based on the fact that the total number of ships of all classes (26-41; C7F website accessed 25 November 2007) is roughly similar to the “40-50 ships typically assigned to Seventh Fleet” (C7F website accessed 25 November 2007), that the Fleet is referring to presence numbers, but the fact that the “‘snapshot’ composition” includes 5-10 destroyers and frigates, while seven destroyers (no frigates) are permanently based in Yokosuka, Japan (C7F website accessed 25 November 2007) calls this inference into question.

Let us assume, for purposes of analysis, that the Fleet commander requires on average a continuous at-sea presence of the low number in each range plus one: four cruisers and six destroyers or frigates. Since two cruisers and seven destroyers are currently based in Yokosuka (C7F website accessed 25 November 2007), and each spends roughly 50% of its time out of homeport (C7F website accessed 25 November 2007), these nine ships can provide a continuous deployed presence of 4.5 combatants. The current demand unmet by Japan-based ships, therefore, is 5.5 per year, currently



sourced from Pearl Harbor and CONUS bases. Since, as demonstrated above, Pearl Harbor is roughly comparable with some of the Australian candidate homeports in terms of meeting Seventh Fleet requirements, there would be little point in contrasting these basing options further. Instead, let us assume that Pearl Harbor-based ships meet the demand for 1.5 of the continuous-presence requirement (with additional ships deploying to Fifth Fleet).

Either CONUS bases, or proposed Australian homeport(s), must therefore make up the difference—four ships continuously on-scene in the Seventh Fleet AOR throughout the year. This four-ship requirement, multiplied by 2.78 deployments per year per requirement, multiplied by \$1.84 million in transit costs, equals \$20,461,000 annually. If the average Navy ship is deployed 1/3 of the time, and a San Diego ship spends 72% (based on Response Ratio) of a Seventh Fleet deployment actually on-scene, it spends roughly 24% of its overall life cycle deployed in theater. Viewed a different way, it takes 4.23 ships in San Diego to meet each single-ship continuous presence commitment in theater. Seventh Fleet therefore requires the dedicated services of approximately 17 CONUS-based deployers in order to meet its requirements. If Seventh Fleet ships are deployed 50% of the time, it will require eight Australia-based ships to meet the commander's requirement. Transit cost overhead for the Australia-homeported ships is negligible, as they become deployed theater assets the moment they cast off their lines. Clearly, while the annual transit-steaming losses are relatively small in U.S. federal budget terms, the ability of eight ships to do the work of 17 represents considerable savings. Assuming that CONUS ports would source future requirements with ARLEIGH BURKEs (or, to be more precise, that the costs for more-expensive CG,

CG(X), and DD(X) would average out with those for the cheaper FFG and LCS platforms to roughly those of a DDG), nine ships saved equals \$6.75-9 billion (Military Periscope accessed 25 November 2007). This, therefore, represents a good initial working figure for improvement costs at a potential Australian homeport that could be offset by ship-construction savings, with transit costs, reductions in wear and tear due to reduced transoceanic steaming, and potential savings in Fifth Fleet deployers offering additional capitalization potential.

Beyond mere financial considerations, Australia-based ships would provide increased crisis-response capability to the theater commander. Even discounting any Australia-based Fifth Fleet deployers, the proposed force of eight WESTPAC ships would have four of their number deployed at all times. Based upon the FRTP, at any given time, notional status of the remaining four would be as follows:

- 1 MCO (Deployment) Ready

- 1 Ready for Tasking or Surge Ready

- 1 in Unit-Level Training

- 1 in the shipyard

Consequently, at any given time COMSEVENTHFLT would maintain an operational reserve of one fully mission capable deployer and one capable of executing all assigned individual shipboard missions, within a day to a week (steaming at 28 knots) of every flashpoint in the theater (except Kashmir, which is up to 11 days from projected Australian homeports). His strategic reserve, in the uttermost emergency, would consist of another, functional but untrained, ship, and an eighth that could be made ready to leave the shipyard in a week or so. By way of contrast, San Diego-based ships would require

roughly two weeks at the same speed in order to reach the closest hotspots, or nearly three for Kashmir.

### Strategic Considerations

#### Historical Context

The U.S. Navy's history with Australia reaches back almost to the beginning of that Commonwealth as an independent entity, and to its own genesis as a player on the world stage.

[I]n late 1907 Prime Minister Alfred Deakin made an independent approach to the United States, suggesting the inclusion of Australian ports on the itinerary of the world cruise by President Theodore Roosevelt's Great White Fleet. The visits to Sydney, Melbourne, and Albany between August and September 1908 were extremely successful, the crowds larger than those gathered to celebrate Federation just seven years before. (Stevens 2001, 14)

A review of this history of cooperation (and conversely, of difficulties and compatibility issues) between Australia and the U.S. is the final foundational category upon which any consideration of future basing must rest. Analysis of alliance history is critical in order to establish and evaluate precedents, and to help predict future developments between the two nations and their respective militaries.

Both navies fought German U-boats in the Atlantic in World War I (Stevens 50-51), but "the relationship between the increasingly powerful republic and the distant imperial Dominion was only dimly perceived on both sides of the Pacific Ocean during the inter-war period . . . indeed shaded at times into a measure of mutual resentment in an era of rising US trade protectionism and a growing isolationist sentiment within sections of America's population." (Hubbard 2005, 3). President Woodrow Wilson even called Prime Minister Billy Hughes a "pestiferous varmint" (McCausland et al eds. 2007, 290).

The rapid pace of Japan's advance across the Western Pacific in WWII, however, led President Roosevelt and British Prime Minister Churchill to the conclusion that the Allied lifeline in the theater ran from Hawaii to Australia (Bureau of Yards and Docks 1947, Vol. I, 44; Morton 1962, 198). With British power strained by a string of defeats at the fringes of empire and the need to defend the Home Islands, Australian Prime Minister John Curtin considered America the "keystone of Australian defence" (Hubbard 2005, 3). The Royal Australian Navy (RAN) also benefited in terms of training and technology through interaction with the U.S., which had invested more in developing ships for the Pacific theater than had the British Empire (Stevens 2001, 133).

This warming of U.S.-Australian relations translated into a massive development of Australia as a cornerstone for the projection of allied power. GEN Douglas MacArthur was one of the earliest proponents of a major U.S. naval buildup on the east coast of Australia (Morton 1962, 341-342); his own headquarters was located in Melbourne (Morton 1962, 195, 252). "It was understood from the beginning that Australia would provide the necessary construction labor and operating personnel and that the United States would be called upon to supply only the materials and equipment that could not be obtained locally." (Bureau of Yards and Docks 1947 Vol II, 279). This promoted alliance relations despite manpower and materiel shortages brought on by the war. The presence of some 66 U.S. military installations in the Brisbane area of Queensland alone illustrates the massive scale of this buildup. These included 38 naval activities ranging from transmitter stations, Bachelor Officers' Quarters in the Waterloo Hotel and petroleum dumps, through a Gunnery School, Seventh Fleet Headquarters, and major submarine and seaplane bases (Oz at War website accessed 23 October 2007).

Surface forces from PT boats to heavy transports and major combatants were based or repaired at Cairns, Darwin, Sydney (Bureau of Yards and Docks 1947 Vol. II, 277), Brisbane (also a submarine base), Townsville, and Sydney (Bureau of Yards and Docks 1947 Vol. II, 280-284). U.S. and Allied submarines, many of them based in Australia, strangled Japan's shipping (Morton 1962, 545). Following the Japanese surrender, naval construction personnel moved to Japan to repair damaged infrastructure in preparation for occupation, and were quickly demobilized thereafter (Bureau of Yards and Docks 1947 Vol. II, 413-416). The peace and Cold War periods that followed saw a gradual U.S. drawdown in the region (Stevens 2001, 160) and abandonment of most of America's Australian bases.

After the war, the nature of Pacific challenges led the RAN toward independence from the Royal Navy and a consequent partnership with the U.S. In 1947 the two navies began a "formal information exchange system" (Stevens 2001, 161). USN habitability practices and shipbuilding technology benefited the RAN as it sought to modernize its WWII surface fleet (166-167). The pivotal event of the postwar era, however, was the signature of the Australia-New Zealand-US (ANZUS) treaty on 1 September 1951 (Hubbard 2005, 25) in order to "coordinate their efforts for collective defense for the preservation of peace and security" (Treaty quoted in Hubbard 2005, 161) in the Pacific.

In the Korean War, Australia was the first nation to commit forces to fight alongside the U.S. (Hubbard 2005, 24), and the RAN at one point had a fifth of its personnel in action (Stevens 2001, 172). The 1960s saw strong Australian support for South Vietnam even before major U.S. operations (Stevens 2001, 203); Australian assistance to the Vietnamese in the absence of a UN mandate lent credence to U.S. policy

in the region, and cooperation on the ground began in April 1965 (Hubbard 2005, 99). Unfortunately, the decade also saw the disastrous crash of HMAS MELBOURNE and USS FRANK E. EVANS. Even in this disaster the RAN proved a superb ally; “the rescue operation by MELBOURNE” of the crew that had crossed her bow despite warnings “was exemplary” (Stevens 2001, 203). In 1985 New Zealand denied a port visit request by the nuclear-capable USS BUCHANAN (Alves 1985, 1-2). U.S. pressure failed to change New Zealand’s policy (Hubbard 2005, 138), despite the fact that 78% of New Zealanders still favored participation in ANZUS (Alves 1985, 3) and declared themselves “not anti-American, only antinuclear (Donnini 1991, 33). Despite controversy at home and uncertainties about future relations with New Zealand, however, “Australia kept ANZUS together” (McCausland et al eds. 2007, xii). “The 1999 notice from the U.S. Administration that it would not be putting American troops’ boots on the ground in East Timor following an overture by the Australian government once again shocked many in Australia.” (2). Defense Secretary William Cohen did guarantee U.S. support in the event of direct Indonesian intervention (43), and limited U.S. involvement led indirectly to a positive development for the alliance: Australia took the lead of an international mission in its sphere of influence (59).

The emergence of global Islamism in the new millennium cast the alliance in a completely new light. “Prime Minister John Howard was visiting Washington on 11 September 2001, and that morning watched the smoke rising from the site of the deliberate crash of a civilian airliner into the Pentagon, the heart of the American military establishment.” He immediately invoked the ANZUS treaty for the first time in history, despite its explicit reference to threats in the Pacific (Hubbard 2005, 107). Shortly

thereafter, Howard told President Bush, “Of course, it’s an attack on all of us,” and quickly became one of his most trusted friends among world leaders. (McCausland et al eds. 2007, 44). “In June 2002 . . . Howard told the U.S. Congress that ‘America has no better friend anywhere in the world than Australia’ (39). In October of that same year, his earlier recognition of the danger shared by both nations proved to have been prescient, as 88 Australians died in the Jemaah Islamayah-perpetrated terror bombing in Bali (50). In 2003 Australia participated in Operation IRAQI FREEDOM, causing President Bush to label Prime Minister Howard a “man of steel” (290). This demonstration of alliance solidarity went well beyond the vision of ANZUS’s drafters, but in Hubbard’s view fits solidly within the Australian tradition of “[s]ecurity self-reliance within the ANZUS framework, based on access to United States military technology and on intelligence-sharing”. Today both nations continue to fight side by side in both Iraq and Afghanistan (Hubbard 2005, 108).

At sea, the relationship between Australia and the U.S. is equally strong in the 21<sup>st</sup> century. In fact, recent naval cooperation has included a low-level form of “basing” relationship. U.S. destroyers use HMAS STIRLING (near Fremantle) for the “Sea Swap” program, exchanging their deployment-weary crews turn over with counterparts flown in from U.S. bases while berthed at the Australian base (Global Security site accessed 29 November 2007). While the relative merits of the Sea Swap initiative are a separate topic for discussion, Australia’s cooperation in the program is a pertinent, timely precedent for potential future basing arrangements. More permanent (though not specifically naval) U.S. facilities include communications and intelligence sites at North West Cape, Pine Gap, and Nurrungar (Hubbard 2005, 42).

## Historical Conclusions

“Australia is the only country that has fought with the United States in every one of its major conflicts since 1914, the good and the bad, the winning and the losing.” (Charles Krauthammer, quoted in McCausland et al eds. 2007, 289). Clearly there is strong precedent not only for military cooperation but for American military, and particularly naval basing in Australia. Australia’s strategic position offered a tremendous advantage to both nations and their allies in World War Two. Although this fact was overshadowed by America’s fixation on the Soviet threat during the Cold War, the locations of today’s challenges in the region closely mirror many of WWII’s decisive points. Furthermore, the sheer number of facilities constructed during WWII leads to a possibility that at least some old military facilities might still exist in salvageable condition. Both navies grew and developed synergistically through their interaction both during and after the war, and actually developed stronger ties even as the U.S. left its former bases behind. The postwar ANZUS Treaty remained solid and slowly evolved through highs and lows during the Cold War and its aftermath, until Australia’s gallant response to the events of 9/11 breathed new life into the alliance. Today, according to former New South Wales Labor Premier Bob Carr, the alliance is stronger than ever, “as good as it gets” (Quoted in McCausland et al eds. 2007, 302).

## Military-Interoperability Considerations

“Maintaining interoperability with U.S. forces . . . is now regarded by Australia as the *sine qua non* of the future” (Hubbard 2005, 123). Of course, even between navies, coalition operations have not always been smooth. Shepard (2003) calls the American, British, Dutch, Australian coalition (ABDA), formed to defend the Netherlands East



Indies (the present-day nation of Indonesia) against Japanese attack “painful and short-lived” due to “[d]iffering objectives and priorities by allied governments . . . and poor command and control (C<sup>2</sup>) of tactical forces” (Shepard 2003, 1). He attributes ABDA’s failure in part to a number of factors unique to the circumstances of the time, such as Japanese superiority in certain tactics, technologies, and airpower, and the personalities of certain leaders (6-8). Nevertheless, he also identified challenges endemic to coalition warfare such as coordinating joint and combined forces (8), unity of effort (35), smooth flow of communications, and under-representation of smaller powers (43). Most importantly, “The inability to train as a force meant that the discovery of deficiencies in their operations could only occur during combat operations” (70). All of these issues are equally pertinent to effective military interoperability today. Frequent interaction between Australian and Australian-based U.S. forces might further the cause of combined training (and exercises such as TALISMAN SABER; Chief of Defence and USPACOM 2004, 33), which the Strategic Interoperability Review credits with mitigating the consequences of differences in national doctrine (Chief of Defence and USPACOM 2002, 36). On the other hand, Thomas-Durell Young lists a number of obstacles confronting U.S. exercises in Australia, primarily relating to land operations, but one—environmental sensitivities (Young 1997, 10-11) does affect naval exercises as well due to Australia’s unique ecosystem.

Jeffrey D. McCausland points out many of the strong connections between the two nations’ militaries: “Australian and American military officers have served together in various theaters and operations. Each attends the other’s schools; they share intelligence, military doctrine, and materiel on a regular basis.” He goes on to state that

“[T]his link is so routine that the greatest danger is for it to become taken for granted. . . . (McCausland et al eds. 2007, p 245). Naval cooperation includes exercises such as Crocodile 03, incorporating submarine warfare as well as land and amphibious operations (Hubbard 2005, 123) On the other hand, Australian officers Duncan Lewis and Clay Sutton point to important differences between U.S. and Australian counterinsurgency doctrine (McCausland et al eds. 2006). This hardly detracts from the two nations’ prospects for future cooperation; rather, it makes a strong case for an increase in combined training. Michael Evans, citing Australian MG Jim Molan, believes Australians can benefit from American operational experience and “world’s best military practice,” particularly as the ADF focuses on traditional U.S. strengths such as expeditionary littoral operations and global out-of-area operations (301). America can benefit a great deal from Australia’s regional experience, partnerships, and small-wars proficiency (265). U.S. destroyers would also benefit greatly from increased opportunities to “hunt” sophisticated and adept COLLINS-class submarines in combined training (Chief of Defence and USPACOM 2004, 63).

### Technology Sharing

The United States is developing new warfighting concepts and capabilities at a much faster rate than Australia. Unless U.S. and Australian military concept and capability developments are harmonized, Australia may not be able to participate as effectively in future high technology military operations with the United States. (Chief of the Defence Force and USPACOM, 2002, xxvii)

Technological compatibility results from increased levels of military-to-military cooperation. John Higley (in McCausland et al eds. 2007, 145) regards current “[m]ilitary and intelligence operability” as “close to seamless”, pointing to recent or proposed Australian purchases of U.S. Joint Strike Fighters (JSF), AWACS aircraft,

Aegis destroyers, and M1A1 tanks as evidence of growing cooperation. He does, however, identify U.S. secrecy regarding JSF technology as a potential area of contention (McCausland et al eds. 2007, 149). Australia's acquisition of Aegis destroyers (projected to enter service beginning in 2013) is an extremely positive development for USN forward-basing prospects. Cooperation between the two countries for ballistic-missile defense (Hubbard 2005, 124) may become more integrated with the RAN's acquisition of these premium air-defense platforms. While U.S.-based Northrop Grumman lost the contract competition, the winner—Australian Shipbuilding Corporation of Adelaide (Military Periscope website accessed 28 November 2007)—will have the expertise to repair the complex combat system at the center of U.S. surface combatant capabilities. Another Australian company, Austal in Henderson, WA, designed the trimaran hull used by the INDEPENDENCE-class Littoral Combat Ship (LCS) (Austal website accessed 23 November 2007). While the construction yard is in the U.S. to comply with American procurement rules, the parent company could certainly maintain sufficient expertise at its home office to support LCS repair. This type of cooperation between nations, navies, and the private sector could have significant positive impact on all.

Another strong positive example of naval technology sharing between Australia and the U.S. is the Nulka Anti-Ship Cruise Missile (ASCM) decoy system. "Australia developed the hovering rocket, launcher, and launcher interface unit. The U.S. Navy developed the electronic payload and fire control system" (Official Navy website accessed 28 November 2007). Forward basing would promote an increase in combined exercises and training, which might well lead to opportunities for future technological exchange, to the benefit of both navies. On the other hand, Brendan Taylor identifies

another potential side-effect of the JSF and other cooperative-technology programs—a sort of friendly arms race whereby Australia may have to increase defense spending drastically just to remain on board with extravagant American procurement programs (McCausland et al eds. 2007, 184). The differences in spending are vast indeed: “the United States accounts for 43 percent of world military spending, with Australia accounting for a mere 1 percent” (292). Clearly such differences would have to be kept in mind in developing basing agreements and promoting future combined procurement strategies.

In addition to these past or present successes and challenges, The Australian-United States Joint Statement of Principles on Interoperability identifies a number of technological cooperation objectives, several of which could benefit from USN basing arrangements:

- Australia will maintain data link interoperability with U.S. forces as the United States fields its Link 16 air combat information system and Cooperative Engagement Capability air tracking system.

- Australia will participate in the US. Joint Tactical Radio System program.

- In collaboration with the United States, Australia will adopt the Combined Enterprise Regional Information Exchange System (CENTRIXS) as the ADF coalition operational network.

- Australia will procure combat identification equipment that is compatible with U.S. forces and upgrade its participation to Level 3 (Technical Participation) in the U.S. Advanced Concept Technology Demonstrator covering combat identification. (Rumsfeld and Hill 2004, 3)

### Interoperability Conclusions

Australia plays a pivotal role in U.S. Pacific strategic plans. “Along with Japan and perhaps Singapore, it is the only defense actor in the region capable of operating in a

high-tempo, cutting-edge combat environment shaped by U.S. military power and led by U.S. forces” (McCausland et al eds. 2007, 79). Efforts to contain Chinese ambitions in Taiwan, in particular, may be intimately integrated with Australian capabilities. Australian SIGINT facilities tie in with their Taiwanese counterparts. RAN ships’ participation in actual hostilities would depend greatly on the circumstances of the conflict. It is likely, however, that they could secure U.S. lines of communications and assume some of the USN’s routine patrolling duties (89). Shared (initially negative) experience in WWII illustrates the necessity of frequent combined training between coalition partners in order to synchronize C<sup>2</sup>, SOPs, and objectives. Recent experience, on the other hand, demonstrates both the beneficial effects of joint training and technological exchange, and their perishability in the absence of frequent and prolonged contact. Sustained contact between RAN and Australia-based USN sailors could bring both challenges and benefits to both navies.

### Geopolitical Considerations

Having established the potential for both quantitative and operational advantages offered by forward basing, the analysis must now address more complex and subjective questions. In order to assess the strategic benefits (and potential drawbacks) of such a policy, it is necessary to determine the ways in which forward basing can serve the strategic objectives—shared and individual—of Australia and the United States. This has, of course, already been partially addressed insofar as the operational-reach, responsiveness, and financial advantages of forward basing present national strategists with a broader array of resources and options. Acceptability to the Australian public is also a major, if not *the* pivotal factor in determining the viability of this proposal. The

concerns of other regional powers must also figure prominently in decisions about basing.

### U.S. Policy Considerations

In order to understand the role FDNF in Australia may play in shaping naval interaction with Australia, other regional partners, neutrals, and potential threat nations, it is important to first review the ways in which forward-deployed ships address USN requirements. Forward-deployed combatants offer distinct advantages (emphasis added below) in several mission areas highlighted in the Naval Operations Concept (2006 edition, 7).

- Secure the United States from direct attack by actively confronting, *early and at safe distances*, those who would threaten us—especially those who would do so with catastrophic means.

Clearly, Australia-based FDNF working in close cooperation with RAN ships on Proliferation Security missions offer increased opportunities to interdict WMD shipments far from friendly shores.

- Secure strategic access and retain global freedom of action by ensuring that *key regions*, lines of communication and the global commons remain accessible to all.

Forward deployment would reinforce not only the critical Pacific Rim region itself, but also allies' recognition of the U.S. commitment to the theater.

- Strengthen *existing and emerging alliances and partnerships* to address common challenges.

Bolstering the on-scene USN presence might, besides strengthening the alliance with Australia, contribute to increased exercises and technology-sharing with other regional powers, bolstering the CNO's vision of a "Thousand-Ship Navy".

- Establish favorable security conditions by *countering aggression or coercion targeted at our partners* or interests.

Increased forward basing would represent a form of community policing on a grand scale, possibly resulting in a chilling effect on piracy, drug smuggling, and human trafficking. Heightened and persistent presence in these waters could reassure allies (and others) of America's commitment to ordered liberty and the rule of law. The Concept summarizes the advantages of naval forces in a manner that highlights the unique advantages of FDNF (emphasis added):

The United States will seek to accomplish those objectives through *widely distributed forward forces* that can assure allies and friends, dissuade potential adversaries, deter aggression and counter coercion regionally, yet possess the *agility to rapidly re-position and merge reinforcements* deploying as part of a global response to crises. When necessary, that global response will include defeating adversaries. (Naval Operations Concept 2006, 7)

Basing ships in Australia would more widely distribute the fleet, push assets forward, and facilitate their ability not only to respond to WESTPAC crises but also to rapidly reinforce Fifth Fleet in the Arabian Gulf region.

The Naval Operations Concept reinforces the case for forward-deployed forces; Michael Tate delves into the numbers. Relying heavy on quantitative analyses of allied and threat military forces, as well as qualitative comparisons of threat capabilities and likelihoods of attack, Tate concludes "that the U.S. could reduce its forward presence. There is no requirement for forward deployed ground or air forces; however; there is a continuing requirement for the naval forces." (52). He goes on to state "Any composite military force in Pacific Command (PACOM) must contain the U.S. 7<sup>th</sup> Fleet." (52). He does not, however, recommend either reducing or augmenting naval forces, which are peripheral to his land-focused central argument. It might be prudent, however, to

consider the hard combat power and the deterrent value of U.S. land forces as separate issues. One might logically infer, therefore, that if (as we have every reason to suppose) the present numbers of in-theater U.S. forces figure into the calculations of would-be aggressors, withdrawing large Army units (due to the lack of operational requirements) might well alter the *strategic* balance in the region. FDNF could fill the gap—and with less likelihood than large “occupying armies” to inflame the sensibilities of the locals.

Domingo B. Alinio addressed the specific issue of the adequacy of the USN Pacific basing structure. Focusing on the potential Chinese threat to Taiwan and overall regional stability, he advocates strengthening the American naval presence in the Pacific (although he believes current forces will be adequate through 2016), and suggests augmenting forward-deployed forces as a means to this end (Alinio 2006, iii). He notes in passing that “Australia, Thailand, Malaysia, Brunei, Indonesia, and the Philippines are all places USPACFLT routinely conducts joint-naval exercises with for GWOT purposes or for routine military training. Any of these nations might make a good prospect from which to secure a guaranteed permanent access to bases depending on the conflict scenario,” (83) but goes on to state, “because of the longtime special relationship with the US and its proven strategic location,” his preference for the Philippines. (83). Despite this difference in his proposed basing location, Alinio recognizes the inadequacy of the Navy’s present Pacific infrastructure and focuses on FDNF as the solution.

Basing in Australia may yield benefits besides the obvious strategic and financial advantages. Americans have a very positive view of their Southwest Pacific allies. Richard Armitage praised the toughness of Australians, who “shaved with a chainsaw



and trimmed their nails with a jackhammer” (quoted in McCausland et al eds. 2007, 289).

Basing might offer substantial morale, recruiting, and retention improvements:

Australia is frequently visited and generally well-liked by US Navy and Marine Corps personnel. . . . [P]ort visits to Freemantle [sic] and Perth were so popular among the Americans—many of whom had just spent several months at sea—that they were designated the favorite rest and relaxation areas for US sailors and marines overseas. (Donnini 1991, 14)

Clearly, while overseas bases may incur certain challenges and difficulties (such as host-nation sensitivities and potential restrictions on U.S. forces; Critchlow 2005, CRS-4), there is also a broad consensus that FDNF presents unique advantages to fulfill U.S. strategic policy. As stated in the 2007 Maritime Strategy (8), “United States seapower will be globally postured to secure our homeland and citizens from direct attack and to advance our interests around the world.”

#### Australian Political Considerations

The dynamics of an alliance between two closely aligned, but powerful and independent allies require that any bold strategic initiative may proceed only after careful consideration of the needs of both parties. Assessment of Australia’s strategic needs is critical because it would be, in many ways, the “giving” party in a forward-basing arrangement. The U.S. would have to make substantial capital outlays, to be sure, but (as demonstrated above) it would make this investment in the expectation of long-term returns. Some Australians would certainly benefit, but it is easy to see how others might focus on the “some” rather than the “benefit” aspects. Citizens not receiving tangible, immediate rewards from a new base might resent the profits paid to one or two states and a small handful of contractors as inadequate recompense or worse, in comparison with perceived sacrifices of land and sovereignty by the nation as a whole. The burden of

proof therefore would rest upon both national governments (but especially the U.S.) to convince Australia's people of the long-term economic, strategic, and political benefits of forward basing. Since Australia is a democracy, due regard for public opinion must guide any decisions about future basing arrangements. This highly-subjective research area can necessarily only result in a broad assessment of possibilities.

Strategy:

This theme has played a strong role in Australian strategic policy since World War Two. The 2005 Defence White Paper Update declares that "US engagement in the Asia-Pacific region has been the foundation of the region's strategic stability and security since World War II, and is no less relevant sixty years on" (6). It also states that "the path of China's economic modernisation and growth will provide significant challenge. . . [and its] defence modernisation may create the potential for misunderstandings, particularly with the development of new military capabilities that extend the strike capability and sustainability of its forces" and stresses the importance of a peaceful resolution of Taiwan's status (2005 Defence White Paper Update 6-7). It also emphasizes the dangers posed by North Korea, the rising importance of Indonesia in the region, the threat of worldwide Islamist terrorism, and the "particular concern" of instability in neighboring Papua New Guinea (2005 Defence White Paper Update 7-8).

Developments favoring naval cooperation and modernization include creation of a Joint Offshore Protection Command to combat maritime terrorism, and participation in the counter-WMD Proliferation Security Initiative (2005 Defence White Paper Update 10-11). Interestingly, both major schools of Australian strategic thought emphasize the role of naval power. The "reformer-globalists" (who seem similar to what Americans

would call “Wilsonians” or “neocons”) emphasize expeditionary power projection capabilities and “believe the real challenge in an age of globalization is one of joint, global-regional maritime-style operations”. The “defender-regionalists”, on the other hand, “believe . . . that it is better to structure the ADF to fight a traditional air-sea battle” (McCausland et al eds. 2007, 299-300). What role does the U.S. play within this framework? The Navy section of the Update emphasizes modernization, including the continued acquisition of U.S. ships and helicopters (2005 Defence White Paper Update, 23). Robert Ayson states that “Securing the ongoing presence of substantial U.S. forces in North Asia in particular remains one of the core objectives behind Australia’s commitment to its own part of the hub-and-spokes system” (McCausland et al eds. 2007, 121).

#### Australia and China:

The most vital question for Australia is whether U.S.-China relations are defined by shared interests or dangerous rivalry. This question is pivotal because the intellectual and political foundations of the alliance rest upon the idea that Australia’s close ties with East Asia and America are mutually reinforcing and not a zero-sum game. That is, the alliance is supposed to maximize Australia’s options and not limit them. (Paul Kelly in McCausland et al eds. 2007, 52)

Australia walks a careful middle ground between its foremost military ally and the populous economic powerhouse to the north, and depends on Chinese trade (McCausland et al eds. 2007, 117) as much as it depends upon U.S. naval might. Thus, it reacts favorably toward overtures between the two powers, such as former Deputy Secretary of State Robert Zoellick’s suggestion to “encourage China to become a reasonable stakeholder in the international system” (McCausland et al eds. 2007, 125). As Hulsman warns, “[T]he United States must avoid a foreign policy towards China that forces

Australia and its Asian neighbors to choose between the two; it might not like the answer it gets” (McCausland et al eds. 2007, 33). At the same time, however, China’s hunger for resources “enhances the bargaining power of countries like Australia; it certainly does not make Australia or Australian companies beholden to China” (237). Australia passed a difficult test of friendship with the U.S. “with flying colors” in 2005, when Prime Minister Howard supported a two-carrier deployment to the region in response to Chinese aggression, leading China to sever commercial and political ties for a year (86). Australia also refused PRC requests to exempt a Taiwan contingency from its ANZUS commitments (87). Despite these demonstrations of solidarity, however, USN basing arrangements could only succeed as part of a broad program of enhanced regional stability, and (barring extreme changes in the strategic landscape) could not be justified to Australia in a specifically anti-PRC role.

### Obstacles

Dora Alves assesses New Zealand’s withdrawal from the ANZUS treaty in the mid-eighties and identifies a similar current of thought among the Australian Left that must factor into any consideration of strengthened military cooperation between the two countries. She states that “The Australian Labor Party (ALP) government . . . wishes the U.S. ships, whether nuclear-powered or nuclear-capable, to use Australian port facilities in transit. It opposes home porting of foreign warships in Australia. . . .” (Alves 1985, pl 41). With substantial changes in both nations, the alliance, and the operating environment since the Cold War, it remains to be seen whether this attitude was unique to the days of Mutually Assured Destruction or remains in force today. Nevertheless, the anti-nuclear attitudes of certain Australian political elements may continue to present a

critical challenge in the sense of closer relations between fleets. Nuclear politics will become even more significant once the U.S. Navy decommissions USS KITTY HAWK (O'Rourke, Conventional Carrier Retirement, CRS-5) and USS JOHN F. KENNEDY (O'Rourke Conventional Carrier Retirement, CRS-3), leaving only nuclear-powered aircraft carriers.

Broader issues also hamper relations between the two nations. Periodic U.S. flirtation with agricultural protectionism is a recurring source of ill-will in Australia (McCausland et al eds. 2007, 139). The ongoing war in Iraq is stressing the alliance: "Polls show that positive feelings about the United States are down to 58 percent, a low figure by historical norms. This compares towards the Australian public's positive feelings toward Europe at 85 percent, toward Japan at 84 percent, and toward China at 69 percent" (40). Australian professors and policy experts Rod Lyon and William T. Tow, while allowing that "a more intimate relationship is possible" (Lyon and Tow 2003, 34), also contend that "U.S. bases, in the strict sense of that term, might be difficult for Australia to digest" (30). They go on to state that "U.S. military forces have not been 'based' in Australia since World War II, and it might require Australians to believe that a similar level of insecurity characterized the current environment before they believed that such arrangements were necessary" (30).

#### Strengths and Shared Values:

Of course, other arguments could be brought to bear to convince Australia of the merits of USN basing. Emphasizing the threat to Australia would not be the most effective approach, since surface warships (while they effectively address aspects of terrorism such as piracy, WMD smuggling, and the international movement of arms and

jihadist leaders) are not perceived as central to countering terror threats such as the Bali bombing. Basing advocates would have to promote the benefits of forward basing in terms of both regional stability and benefits to the Australian economy. At the same time, it would be important to discuss and mitigate any potential adverse effects, which would be less significant for naval forces than for large Army or Marine formations. It would be critical as well to emphasize the two nations' shared values and cultural heritage:

Both Australia and the United States are settler cultures, "better" and more meritocratic offshoots of the British homeland. Both are broadly immigrant cultures, beyond their common Anglo roots. Both are enthusiastic capitalist cultures, having relatively low rates of taxation and a deep deference to the rule of law. Both broadly welcome and benefit from globalization . . .

(John C. Hulsman in McCausland et al eds. 2007, 31)

Close economic ties also unite the two nations. "55 percent of Australia's direct investment now goes to the United States. . . ." (McCausland et al eds. 2007, 146). The two nations implemented a Free Trade Agreement on January 1, 2005, although Australians have noted its adverse effects upon the balance of trade (197). Despite occasional confrontations (and the aforementioned negative poll data for the U.S. as the Iraq conflict draws on), "polling shows something like 90 percent of the public support the alliance" (The Honorable Bill Hayden, former Governor-General of Australia, quoted in McCausland et al eds. 2007, 4).

### The 2007 Election

The Australian Left is increasingly disillusioned with the war in Iraq and has perceived the United States as pursuing an increasingly unilateral foreign policy. U.S. policies on Iraq, Guantanamo Bay, and Abu Ghraib, have negatively affected segments of the Australian public's perceptions of American power. Despite this, support for the ANZUS alliance with the United States remains strong among most Australians.

(Vaughn, Australia report 2007, CRS-2)

One of the primary questions beginning this thesis concerned the extent to which the current strength of the ANZUS alliance depended upon the personal friendship between U.S. President Bush and then-Prime Minister Howard of Australia. With the victory of Kevin Rudd's Labor Party in the recent election (CNN website accessed 29 November 2007), this question became more urgent. First, a brief examination of Australia's electoral system and political climate is in order. By way of comparison, the existence in the U.S. of a de facto two-party system means that Democrats and Republicans must divide the political gamut between them, compromising at times to pass key legislation or overcome national crises, but also periodically polarized by their more activist base constituencies. Australia's system however permits a more diverse array of political parties to remain competitive at the national level, with the two leading contenders closer to the center of the spectrum than their American counterparts. Brendon O'Connor finds that "[T]he [Liberal-National] Coalition and the Labor party are strongly supportive of the alliance in a largely bipartisan manner" (McCausland et al eds. 2007, 164). "Defence Minister Kim Beazley . . . and Prime Minister Bob Hawke . . . occupied powerful positions in the right division of the Australian Labor Party and reflected the traditional rightist view of ANZUS and defense: pro-American . . ." (Donnini 1991, 59). Paul Kelly points out another factor in favor of a pro-alliance Labor policy: "[T]he alliance subsidizes Australia's security policy, thus permitting a level of social spending that otherwise would be required for the defense budget" (McCausland et al eds. 2007, 60).

Lyon and Tow (2003, 19) predicted that new Prime Minister Kevin Rudd may be one of the few in Labor who might remain committed to a strong alliance, citing his statement that “ANZUS continues to be of central relevance to Australian interests for the foreseeable future.” They also, however, note his criticism of former Prime Minister Howard for excessive reliance on ANZUS, and his desire to include cooperation with the UN and Asian nations as the other two “pillars” of Australian defense. Today he announced that Australian troops would be fully withdrawn from Iraq by mid-2008 (Google AFP news site accessed 29 November 2007; note, the announcement took place on the 30<sup>th</sup> in Australia due to time-zone differences). Nevertheless, this decision to withdraw from a lengthy and unpopular war, in light of Rudd’s pro-alliance statements in the past, does not necessarily proceed from a desire to distance Australia from the U.S. Indeed, Rudd’s generally favorable attitude toward America may lead toward future concessions outside the Middle East in an effort to maintain ANZUS unity. Speculation aside, history, technology, and decades of Australian strategic policy favor continued strong relations between the two nations.

#### Regional Partners and Potential Partners

“In 1994, the Association of South-East Asian Nations (ASEAN) had provided the auspices for a new regional forum . . . to discuss a mutual security agenda. At the beginning of the new millennium things seem far less certain” (Hoare 2003, viii). The uncertainties of today’s South Pacific security environment require careful considerations not merely of American and Australian strategic needs, but also the objectives and sentiments of several significant regional powers. Major policy changes such as basing decisions must take into account the opinions of Asia’s friendly and non-aligned nations.



To an even greater degree than Australia's, however, other regional powers' potential reactions are a highly subjective area dependent largely on precedent and speculation.

## Japan

“Australia and Japan both support the U.S. presence in Asia, and encourage continued engagement with states in the area” (Hoare 2003, ix). While both are closely aligned with the U.S., there is no formal defense agreement between the two regional powers (Hoare 2003, x). Another significant difference is the fact that Japan's relationship with America—together with its occupation by Allied forces following WWII and its strategic location during the Cold war—has resulted in significant U.S. basing arrangements. Might the Japanese resent a closer, and potentially lucrative, arrangement between their Pacific neighbor and the U.S.? It is unlikely. “Japan is Australia's largest trading partner. Australia has been a major source of natural resources for Japan's postwar economic ‘miracle’” (Hoare 2003, 11). Furthermore, close cooperation in negotiating a diplomatic settlement in Cambodia and Japanese aid to Australian-led operations in East Timor (Hoare 2003, xi-xii) have demonstrated the two nations' common interests in the theater. It is therefore scarcely conceivable that Japan would object to perceptions of Australia's gains resulting from a basing deal with the U.S. Instead, Hoare (although he does not address the basing issue) contends that Japan's Maritime Self Defense Force (JMSDF) and the RAN should participate in more officer exchanges and exercises together (Hoare 2003, 38-40).

On the other hand, might basing arrangements adversely affect Japan's view of America? Again, such a reaction is improbable. Mixed feelings about Iraq aside, Japan's relationship with the U.S. Navy is characterized by a unique combination of an

appreciation of a strong stance in the region (Currie, Weekly Standard website accessed 1 December 2007) and the mutual benefits of ongoing technology sharing (for example, Japan operates Aegis destroyers; Military Periscope accessed 1 December 2007) with resentment of occasional misconduct by off-duty sailors. A heightened U.S. presence in the region without a heightened presence on Japanese soil, therefore, is a likely win-win situation for Tokyo. At the same time, the U.S.-influenced similarities shared by the RAN and JMSDF (Hoare 2003, 17) might continue to grow and reinforce one another with a heightened USN presence and more frequent combined exercises in Australian waters. “Closer ties between these two nations that occupy key geostrategic positions in the north and to the south of East Asia can promote common national interests and benefit peace and stability in the Asia-Pacific” (13).

## Indonesia

“Australia’s support for East Timorese self-determination . . . ‘more or less demolished in three months a security and diplomatic relationship (with Indonesia) that Canberra policy-makers had been working on for more than fifty years’” (Coral Bell cited in Hoare 2003, 30). Bilveer Singh, assessing the two nations’ conflicting views of that crisis and the slow subsequent growth in cooperation since, would probably agree. He contends, “In light of restructuring the ADF into a more hostile and aggressive posture, Australia is increasingly viewed as an interventionist power willing to sacrifice strategic and diplomatic gains that took many difficult years to achieve for short-term domestic political gains.” (Singh 2002, 163). According to The Honorable Bill Hayden, former Governor-General of Australia, not only Indonesia but also Malaysia characterized the Australian forces as “neo-colonial resource bandits” (quoted in

McCausland et al 2007, 14). Clearly, Australian strategists must consider the views of their populous neighbor in making future defense policy. Might Indonesia resent an increased American presence, jeopardizing cooperation against indigenous Al Qaeda affiliates? Again, this is unlikely; these groups' limited operational reach make them far more likely to threaten the regime than the States. Even Singh, while acknowledging that "all countries in the region recognize that the Americans are in the region to safeguard their own interests," concedes that "the U.S. presence has had a positive resonance on the regional strategic environment" (167). Certainly U.S. tsunami-relief efforts have only burnished the Navy's image in Djakarta since Singh wrote those words. He is less optimistic about Australia, recommending a "gradual, moderated, and coordinated increase in bilateral activity" (165) although one wonders whether *trilateral* activity might help heal the divide sooner. Singh's opinions may represent an unusually bleak view of the current state of Australian-Indonesian relations, but his recommendations for future relations focus on maritime issues: "Navy-to-navy cooperation is given priority" (166). On a cautionary note, however, renewed unrest in East Timor (with potential for Australian intervention against the Indonesian-aligned West Timorese) might open the distance between Djakarta and Canberra once more.

#### Others

The available literature suggests little as regards potential reactions by India and Pakistan, either as individual nations or in terms of their periodic conflicts over Kashmir. Pakistan is preoccupied with internal crises and the Afghan border, and any American military influence in Karachi will depend on the presence of thousands of American ground troops across that border—not on ships thousands of miles away. While assigned

to Seventh Fleet's area of responsibility (Defense Link website accessed 18 October 2007), India is not the primary focus of either the Fleet or the RAN. On the other hand, as a matter of pure speculation, it is highly likely that India might welcome neighboring China's preoccupation with a heightened USN presence in the region. The Republic of Korea, in a similar position to Japan's, might welcome an increased American presence at sea as a more palatable deterrent alternative to the 12,500 U.S. soldiers leaving the Peninsula by 2008 (Stars and Stripes article accessed via military.com 1 December 2007). Meanwhile, "squeezed between two giants in Asia, Mongolia probably will continue to look across the Pacific to its North American patron to protect its sovereignty" (Military Periscope website accessed 1 December 2007) and would likely welcome such a move.

The United States has developed small but welcome programs with Papua New Guinea, Fiji, and Tonga, although that with Fiji was terminated following the 1987 coups. Although there may be scope for some expansion of U.S. defense cooperation in the South Pacific, it is important not to compete with or disrupt long-standing and broader linkages between South Pacific states and Australia and New Zealand. (Dorrance, ed. 1990, viii)

U.S. warships based in, and working closely with, Australia could reach out to nations like these, who (despite their small size, population, and military strength) could provide invaluable intelligence and other cooperation in the Global War on Terror.

### China

"A broadened U.S.-based regional alliance framework could spark a more acrimonious relationship between China on one hand and the U.S. and its allies on the other" (Hoare 2003, 8-9). U.S.-China relations are complex. They have also been far closer than popularly imagined since "Mao began to assess the Soviet Union as a greater threat to China at about the same time that U.S. president Richard Nixon began looking

for a way out of Vietnam and a strategic partner to balance the Soviet threat to America” (Graff and Hulsman eds. 2002, 256), and particularly since normalization of relations between the two nations in 1979 (259). Michael Tate believes that not only our allies, but also China might feel threatened by a withdrawal of forward-deployed U.S. forces, which are seen as an ongoing deterrent to a future resurgence of Japanese militarism (2001, 45). Whether they would welcome an increase in such forces is a different matter.

John Garver lists five circumstances under which Chinese leaders have historically resorted to the use of force to settle disputes:

1. Deterring superpower attack against China
2. Defending Chinese territory against encroachment
3. Bringing “lost” Chinese territory under Chinese control
4. Enhancing regional influence
5. Enhancing China’s global stature (cited in Graff and Higham 2002, 270)

What is certain is that any strategist advocating a forward-leaning policy in the region must convince China, as Hulsman states, “that military ties between Washington and its allies in Asia are defensive and bilateral in nature, and are not overtly anti-Chinese” (McCausland et al eds. 2007, 35). Such assurances would go a long way towards preventing provocations 1 and 2 from Garver’s list. Item 3 could present a challenge, since the U.S. would have to convince a Taiwan emboldened by the increased naval presence to refrain from excesses of independence rhetoric, while at the same time avoiding overtly pro-Taiwanese statements or gestures. Other than successful consummation of a desperate, all-out assault on Taiwan, it is difficult to imagine how any aggressive move by China could possibly hope to achieve objective 5. On the other hand, port visits, exercises, and other forms of military-to-military cooperation could help China achieve objective 4 peacefully.

## Rogue States and Other Potential Threats

### North Korea

“The Democratic People’s Republic of Korea still maintains massive conventional forces and can menace its neighbours with ballistic missiles and the threat of weapons of mass destruction” Hoare 2003, viii). Worse, this arsenal is in the hands of a Dear Leader who, according to George Washington University professor and former CIA psychologist Jerrold Post, “has the core characteristics of the most dangerous personality disorder, malignant narcissism” (Washington Post website accessed 1 December 2007). Its navy encompasses some 45,000 sailors (Tate 2001, 40) versus the U.S. Seventh Fleet’s average of 20,000 (C7F website accessed 1 December 2007). While the U.S. and its allies enjoy a qualitative edge (Tate 2001, 40), the addition of another squadron of ships would certainly tip the scales further in their favor. The question then, is whether such forces would have a deterrent or a provocative effect upon the DPRK. It would be foolish to assess Kim Jong Il in terms of the cost-benefit calculus typically associated with international strategy—or even to attempt analysis of decision-making processes within his secretive and autocratic regime—but the possibility of an aggressive response cannot be ruled out. Furthermore, Australia is “one of few western nations to maintain formal diplomatic relations with North Korea” (Hubbard 2005, 153). It is quite possible that this relationship, one of the few stabilizing outside influences on the DPRK, would suffer if Canberra were to grant basing rights to the USN.

### Non-State Actors

These organizations—not only terrorists, insurgents, and pirates, but charitable relief groups, think tanks, and lobbyists, as well as international corporations and

cartels—play an increasing role in world and especially in Western Pacific events. If anything, the reactions of many of these entities may be more difficult to predict than North Korea's. Unlike Kim Jong Il, most lack the predictable responsibilities associated with states, not to mention the broadcast organizations, political party organs, and policy pronouncements associated with heads of state. The Navy's current goodwill campaign in the region and beyond (today's headlines on the official Navy website include a port visit in Cambodia and relief efforts in Bangladesh and Ghana; accessed 1 December 2007) has boosted its image in the region considerably, particularly since the 2004-2005 tsunami relief effort (Official Navy website accessed 1 December 2007). Non-governmental organizations grow increasingly accustomed to courteous and generous assistance from American sailors.

On the other hand, pirates and smugglers would certainly not welcome an enhanced naval presence, but their "opposition" should be viewed as a factor in favor of such a proposal. One should not forget that unlike states, who are responsible for (if not always responsible to) their subject populations, and may view the strength of other states as either deterrence or provocation to violence, criminals practice violence "for a living. States may choose whether it is more cost effective to defeat and deter such adversaries or to suffer their depredations, but would be unwise to let fear of "provoking" criminals to practice their chosen profession dictate strategic policy. At the same time, it is necessary to distinguish between bandits and terrorists. The possibility of increased attacks on Australia's territory or her citizens abroad is not inconceivable. Thus, basing arrangements might well pivot on a decision similar to that faced by Australia during the Cold War, when ANZUS drew the attention of a nuclear-armed Soviet Union: will the

enhancement of American deterrence and American friendship benefit or harm the interests of the Australian people?

### Chapter Conclusions

The Western Pacific theater of operations is home to an increasing proportion of the world's population, trade, and potential flashpoints. The U.S. Navy is a critical asset in the nation's response to this complex environment. Unfortunately, the cost-effectiveness of the CONUS-based ships of the fleet is suboptimal due to the vastness of the world's largest ocean. Besides mere transit-cost savings, however, forward-deployed forces offer several distinct advantages, including rapid responsiveness, reassurance to allies and deterrence of rogue elements, and the ability to perform the fleet's missions with fewer ships. Australia exhibits a unique combination of features conducive to basing, including geostrategic location, human and material resources, and a strong, enduring alliance. Basing in Australia could further strengthen this alliance, while also promoting opportunities for both nations to reach out to current and potential partners in the region. Benefits of this partnership might include cultural understanding, synergistic research and development of interoperable future systems, and responsiveness to humanitarian needs. At the same time, planners contemplating such a move would be wise to consider potential drawbacks such as an Australian political backlash against the alliance, destabilization of a growing China, and provocation of rogue organizations or regimes.



## CHAPTER 5

### CONCLUSIONS

#### Chapter Review

Chapter One identified trends in U.S foreign policy and naval strategy indicating a shift in priorities and resources to the Pacific theater of operations. It also introduced policy elements favorable to increased forward basing in that theater, as well as factors limiting the options available for such basing. After selecting Australia as an option with potential for successful basing, it posed a number of questions regarding geographic and financial feasibility. The introductory chapter stated the importance of assessing the question in historical terms, and also in terms of politics—both domestic and international. The opinions, not only of the Australian and American people, but also of other allied, neutral, and potential-threat nations in the region would also merit careful consideration.

Chapter Two reviewed the current state of the literature addressing these questions. It addressed the historical precedent for USN basing in Australia during WWII, but did not find any recent consideration of the topic specifically. Reviewing the literature did reveal a great deal of material on the evolving Australia-U.S. alliance, as well as a number of monographs and theses researching the need for further Pacific basing and force structure. Other resources available to answer the questions at hand include operational cost analysis tools, mapping software, and distance-calculation websites.

These in turn led to Chapter Three, which introduced the methodology whereby these tools could be utilized to answer the research questions. Most of the strategic

research followed naturally from the wealth of books and theses available on the subject, but operational analysis required careful balancing of the tools available. In particular, the research failed to identify a single, current, authoritative tool for measuring the daily operating expenses of deployed warships by class, necessitating interpolation between budget guidance, a U.S. think-tank's program, and Australian government publications. Mapping and route-planning software required data input in terms of airports in the vicinity of ports and regional crisis areas in order to calculate transit distances and times, but provided usable estimates.

Chapter Four analyzed Australia's overall ability to support U.S. naval warships, and demonstrated conclusively that it would be possible (and probably economically beneficial) to do so. In particular, three ports (Darwin, Fremantle, and Adelaide) offer an optimum combination of location and other factors to support USN basing, with a fourth (Townsville) also demonstrating strong potential in both areas. Geographic analysis shows that Response Ratios for all four ports compare very favorably with San Diego in terms of proximity to all potential crisis areas in both WESTPAC and CENTCOM AORs. Some, but not all, also offer shorter transit distances than Pearl Harbor to the Seventh Fleet operating areas, while all are superior in terms of transit times to the Fifth Fleet AOR. Potential Australia-based ships were found to offer corresponding advantages in terms of immediate response to specific hotspots, transit costs, and numbers of ships required to maintain given continuous-presence requirements. Analyzing their potential responsiveness beyond the constraints of the six-month deployment model, and taking into account their constant in-theater presence, demonstrated even greater potential relative to U.S.-based ships.

Chapter Four also analyzed the potential strategic advantages and drawbacks of forward basing. U.S. basing in Australia would build upon strong and overwhelmingly positive precedents in World War Two, although recent precedents make for a slim basis for contemporary analysis. Australia's diverse political spectrum certainly incorporates a number of views—pacifism, environmentalism, and a superpower-skeptical brand of multilateralism—but pro-ANZUS sentiment appears strong for the foreseeable future. America's other allies in the region tend to resent the presence of large American forces on their territory, while respecting U.S. power generally, leading to the conclusion that they might at least tacitly welcome an increased naval presence based in Australia. Moreover, numerous sources indicated that, even where hidden behind the rhetoric of rivalry or resentment, a strong appreciation by most rational actors in the Pacific theater of the generally benevolent effects of Seventh Fleet's command of the seas.

#### Recommendations

At a minimum, the United States Navy should continue its long and mutually beneficial association with the navy and people of Australia. In particular, the fleet should pursue officer exchanges (both educational and operational tours), combined exercises, and the development of closely-integrated weapons systems, C2, and doctrine. Seventh Fleet, America's experts in the Pacific theater, can learn a great deal from the resident experts in the Royal Australian Navy. Beyond mere naval cooperation, however the United States as a whole can benefit from unique Australian strengths in working with regional middle powers, peacekeeping and peace enforcement and multilateral diplomacy.

The Navy should explore the possibility of basing a destroyer squadron in Darwin, Fremantle, Adelaide, or Townsville. Such a force could perform the work of over two similarly-sized units based in San Diego. It would also send an unmistakable signal of America's recognition of, and commitment to addressing, the growing challenges of the Western Pacific theater of operations. Other areas where further research might yield strategic and financial benefits are listed below:

#### Areas for Further Exploration

##### Specific Case Analysis using Classified Material

By delimiting my research to unclassified sources, I was forced to estimate certain critical information, for which detailed answers are available in the classified realm. In so doing, I accepted the limitations of certain research sources and analysis tools. For example, the Great Circle Mapper website calculates long transits using airport-to-airport inputs, while utilizing warships' recent navigational charts laying out actual transit routes could have provided more detailed information. In-theater presence requirements for both Seventh and Fifth Fleet AORs, as well as the detailed answers to other policy questions, are also available in classified Fleet publications and instructions. I believe that, on the strategic / conceptual level, the answers provided by my estimation methods (especially in geographic terms, since the size of the theater tends to make detail errors in calculations less significant) adequately illustrate the major differences between Stateside and Australian basing. Further, detailed research using classified policy documents and compiling a large sample of recent historical documents (such as charts and logs) would probably reach similar conclusions, but could provide a more unassailable case in support of any eventual strategic decisions that might follow from such research.

### Specific Port Analyses

In order to remain focused at the strategic level, I limited quantitative port analysis of ports to those factors required to select the best candidates for U.S. basing, and to compare them with their U.S. counterparts. Actual basing in one or more Australian ports would of course require much more detailed analysis. Hydrographical surveys of ports and their environs would be necessary, as would detailed reviews of pier conditions, docking facilities, and local transportation networks. Extensive discussion with Australian politicians would be critical, and public-opinion polling or other demographic analysis in various locations might also play a role. It is entirely possible that a deeper investigation of candidate cities might result in selection of a homeport different from those deemed most favorable by this thesis.

One possible scenario, for example, could be a decision to base Seventh Fleet's shallow-draft Littoral Combat Ships at one of the Australian ports whose depth was deemed "marginal" for carrier and cruiser-destroyer basing. These 3.7-6.1m draft (Military Periscope accessed 25 November 2007) may even be able to homebase in a port excluded from consideration for basing larger vessels on the basis of depth. This is a possibility worth considering in its own right, since these corvette-size combatants would benefit more than most ships from the elimination of fuel-consuming, potentially harsh oceanic transits.

### Focused Geopolitical Analysis

Research into potential regional consequences of USN basing in Australia has attempted to identify potential reactions by various nations in the region. Consideration of each nation's potential reaction was necessarily broad. For example, it was not easy to

gauge the effects of such a decision on Japan, an ally whose relationship with the U.S. has been complex since WWII. Analysis of increased basing in the region viewed through the lens of a potential regional rival such as China or North Korea might also constitute fruitful ground for further research.

### Other Ship Classes

This thesis focused on prospects for forward deployment of surface combatants due to the author's experience and interest in that area. Obviously, if USN basing in Australia becomes a viable option, both navies might explore the possibility of including other classes of ship. Larger, slower (and in some cases flat-bottomed) amphibious and logistics ships might gain even more benefits from the elimination of Pacific crossings. As alluded to in Chapter 4, Littoral Combat Ships might be a good fit, not only in their combatant role but also as counter-mine ships.

### Other Potential Regional Homeports

Alinio (2006) addresses the general question of whether additional (Western) Pacific basing infrastructure is necessary, and decides in the affirmative (iii). He states his preference for the Philippines as a potential basing location, and also includes (besides Australia), Thailand, Malaysia, Brunei, and Indonesia (83) as potential host nations for homeports. Because his essential focus is the broader question of theater-wide basing adequacy, however, he does not analyze any particular nation or port in detail. A quick glance at a chart or map of the region shows that—while none of these nations may possess Australia's unique combination of democratic stability, education and infrastructure, and consistently close alliance with the United States—ships

homeported there could probably provide Response Ratios equal or better to those calculated for many Australian ports. An analysis on the level of this thesis, addressing both the internal issues confronting one of these nations and the responsiveness potential of ships homeported in Southeast Asia might well discover numerous potential advantages for the U.S. Navy, the regional partner nation in question, and the friendship between both countries.

#### Fifth Fleet Basing Comparison of Australia with East Coast Ports

As a former WESTPAC sailor, I believe that ships forward-homeported in the Western Pacific are best utilized in their element—as a regionally-expert, on-scene theater crisis response force. This approach reflects not only a regard for Seventh Fleet’s expertise in local threat politics, tactics, and technologies, but also countless past successes by other locally-based organizations in such diverse areas of human endeavor as community policing and counterinsurgency warfare. Additionally, the location of present USN bases in Japan (thousands of miles north of the straits allowing a passage west around Asia to the CENTCOM AOR) do not offer a large time-distance margin of advantage over certain US-based ships. For these reasons, while I did compare Fifth Fleet responsiveness for potentially Australia-based ships with their Pearl Harbor and CONUS-based counterparts, I focused primarily on their potential as Seventh Fleet assets. I did not contrast these figures at all with those for East Coast-based ships responding to the Arabian Gulf, which was completely outside the thesis’s focus area. Many Australian ports, however, enjoy a virtually unobstructed run of open sea to the Fifth Fleet in-chop line, and therefore offer surprisingly short transit times. Further research may well reveal that Australia-based ships not only offer superior

responsiveness to the CENTCOM commander in comparison with their West Coast-based counterparts, but may possibly also over Norfolk- or Mayport-based ships. Australia may well offer even more versatility and value-added to the U.S. Navy than originally envisioned.



## GLOSSARY

ANZUS: The 1951 Australia-New Zealand-United States treaty of mutual defense, since 1985 essentially a bilateral relationship between Australia and the U.S.

CENTCOM: The United States Central Command, exercising combatant command over U.S. forces in the Middle East, Arabian Gulf, and Horn of Africa areas of responsibility (AORs).

Forward-Deployed Naval Forces (FDNF): Those ships, submarines, and aircraft permanently or semi-permanently deployed to, *and homeported for the duration of that deployment in*, an operational theater of operations outside the United States. Distinct from “deployed” naval forces, which rotate in and out of theater (from Stateside bases) according to schedules established and modified by the operational chain of command.

PACOM: The United States Pacific Command, exercising combatant command over U.S. forces in the Pacific and Indian Oceans and surrounding land areas.

Sea Basing: Per former Chief of Naval Operations, ADM Vern Clark’s “Sea Power 21” concept, “exploiting the largest maneuver area on the face of the earth: the sea. . . as the foundation from which offensive and defensive fires are projected”. (<http://www.navy.mil/navydata/cno/proceedings.html>, accessed 21 September 2007).

“Thousand-Ship Navy”: Also known as the “Global Maritime Partnership . . . self-regulating and without treaties” (ADM Mullen, quoted in “Defense Daily 25 October 2006). “. . . a fleet-in-being, if you will—comprised of all freedom-loving nations, standing watch over the seas, standing watch over each other.” (Former Chief of Naval Operations ADM Mike Mullen, speech to students and faculty of the Naval War College, 31 August 2005 at the Naval War College Newport, R.I., quoted in <http://www.navy.mil/navydata/leadership/quotes.asp?q=11&c=2> accessed 14 October 2007).

Western Pacific Theater of Operations (WESTPAC): For purposes of this thesis, the sea and land areas under the operational purview of Commander, United States Seventh Fleet. For the purposes of calculating time and distance factors governing the responsiveness of naval forces and their associated costs, a strategic epicenter between regional focus areas (Taiwan Strait, Kashmir, the Korean (McCausland et al. eds. 2007, page 294) Demilitarized Zone (DMZ), Spratly Islands, Strait of Malacca, and East Timor, located at 14°18’N, 109°11’E on the east coast of southern Vietnam will represent the theater. In like manner, for purposes of Great Circle route calculations, Diego Garcia Military Airport (NKG), 7°18’48”S, 72°24’40”E, the closest airport to the southeast corner of the

boundary line between Seventh and Fifth Fleet AORs ( $5^{\circ}\text{S}$ ,  $68^{\circ}\text{E}$ ) will represent the Fifth Fleet AOR. A correction factor of 345 miles and one day's steaming will be added in transit calculations to account for the difference.

TRANSPAC: An original (to the best of the author's knowledge) term describing a transit of the Pacific Ocean by a U.S. naval warship (nominally based at Naval Station San Diego, California) to the WESTPAC point described above, to include all near-term and amortized long-term costs thereof.

Response Ratio: An original (to the best of the author's knowledge) measure of efficiency determined by the number of days a ship is available for tasking by an operational theater Combatant Commander, divided by the overall length of deployment (expressed as days homeport-to-homeport).

Steaming Day: 24 hours at a fuel-efficient nominal 16-knot Speed of Advance (SOA); i.e. 384 nautical miles.

# APPENDIX A

## HOMEPORT TIME-DISTANCE TABLE

	<b>Read each cell in three rows:</b> <b>Top: Applicable intermediate waypoints along transit routes</b> <b>Middle: Transit Distance to Points in NM</b> <b>Bottom: Transit Time in Days at 16 Knots (384 nm/day)</b>	
Homeport	Point WESTPAC	Point CENTCOM
Newcastle (NC) 32°56S, 151°47E Direct	FI-TO-MO 5660NM 15D	DV 6365NM 17D
Newcastle (NC) 32°56S, 151°47E Eastern	FI-MS 5701NM 15D	DV 6365NM 17D
Pt Kembla (PK) 34°28S, 150°54E Direct	FI-TO-MO 5807NM 15D	DV 6215NM 16D
Pt Kembla (PK) 34°28S, 150°54E Eastern	FI-MS 5848NM 15D	DV 6215NM 16D
Townsville (TV) 19°15S, 146°50E Direct	TO-MO 3793NM 10D	TO-DA 6594NM 17D
Townsville (TV) 19°15S, 146°50E Eastern	MS 4339NM 11D	TO-DA 6594NM 17D
Adelaide (AD) 34°56'42"S, 138°31'50"E	FR-SS 5027NM 13D	5386NM 14D
Portland (PL) 38°19'05"S, 141°28'16"E Direct	DV-FI-TO-MO 6860NM 18D	5254NM 14D
Portland (PL) 38°19'05"S, 141°28'16"E Eastern	DV-FI-MS 6901NM 18D	5254NM 14D
Pt Hedland (PT) 20°22'40"S, 118°37'35"E	SS 2910NM 8D	3886NM 10D

	<b>Read each cell in three rows:</b> <b>Top: Applicable waypoints along transit routes (minus origin and destination)</b> <b>Middle: Transit Distance to Points in NM</b> <b>Bottom: Transit Time in Days at 16 Knots (384 nm/day)</b>	
<b>Homeport</b>	<b>Point WESTPAC</b>	<b>Point CENTCOM</b>
Darwin (DA) 12°24'53"S, 130°52'36"E	ET-SS 3302NM 9D	4737NM 12D
Hobart (HO) 42°54S, 147°18E Direct	FI-TO-MO 6575NM 17D	5665NM 15D
Hobart 42°54S, 147°18E Eastern	FI-MS 6616NM 17D	5665NM 15D
Burnie (BU) 41°03S, 145°54E Direct	FI-TO-MO 6460 NM 17D	5640NM 14D
Burnie (BU) 41°03S, 145°54E Eastern	FI-MS 6501NM 17D	5640NM 14D
Bunbury (BB) 33°19E, 115°39E	FR-SS 3678NM 10D	4044NM 11D
Fremantle (FR) 31°56'25"S, 115°58'01"E	SS  3578NM 9D	  3944NM 10D
Devonport (DV) 41°10'11"S, 146°25'49"E Direct	FI-TO-MO  6453NM 17D	  5565NM 14D
Devonport (DV) 41°11S, 146°20E Eastern	FI-MS 6494NM 17D	5565NM 14D
Broome (BR) 17°56'41"S, 122°13'54"E	SS 2978NM 8D	4119NM 11D
Pearl Harbor, HI K3 Helipad (02HI) 21°21'43"N, 157°57'03"W	 5793NM 15 D	WP-SS  9706NM 25 D

<b>Read each cell in three rows:</b> <b>Top: Applicable waypoints along transit routes (minus origin and destination)</b> <b>Middle: Transit Distance to Points in NM</b> <b>Bottom: Transit Time in Days at 16 Knots (384 nm/day)</b>		
<b>Homeport</b>	<b>Point WESTPAC</b>	<b>Point CENTCOM</b>
San Diego, CA (SAN) 32°44'01"N, 117°11'23"W	PH 8668NM 23 (26) D	PH-WP-SS 12581NM 33(36) D

*Sources:* Latitudes and Longitudes per Australian Customs website for Australian ports and Wikipedia for US ports (rounded to nearest minute). Calculations using Google Earth, plus Great Circle Mapper website for open-ocean transits (All sites accessed 20-21 November 2007).

Color Code:



Marked advantage over all US ports in terms of proximity to both WESTPAC and CENTCOM AORs.



Marked advantage over San Diego in terms of proximity to both WESTPAC and CENTCOM AORs. Significant advantage versus Pearl Harbor in relation to CENTCOM, but as far or farther from WESTPAC.



U.S. homeports, included for purposes of comparison

Note: San Diego transit includes a typical three-day layover in Pearl Harbor, HI (PH).

## APPENDIX B

### TRANSIT TIMES AND DISTANCES FROM LEADING AUSTRALIAN HOMEPORTS TO SELECTED REGIONAL HOTSPOTS

	<b>Read each cell in four rows:</b> <b>First: Applicable waypoints along transit routes (minus origin and destination)</b> <b>Second: Transit Distance to Points in NM</b> <b>Third: Transit Time in Days at 16 Knots (384 nm/day)</b> <b>Fourth: Transit Time in Days at 28 Knots (672nm/day)</b>					
Homeport	Taiwan Strait	DMZ	East Timor	SOM	Point Kashmir	Spratly Islands
Townsville (TV) 19°15S, 146°50E Eastern	MS 4813NM 13D 7D	MS 5335NM 14D 8D	TO 2300NM 6D 3D	TO 4309NM 11D 6D	TO-DA-MD 7660NM 20D 11D	MS 5105NM 13D 8D
Adelaide (AD) 34°56'42"S, 138°31'50"E	FM-SS 5954NM 16D 9D	FM-SS 7097NM 18D 11D	FM-NW 3720NM 10D 6D	FM-SS 5570NM 15D 8D	FR-MD 7050NM 18D 10D	FM-SS 4868NM 13D 7D
Darwin (DA) 12°24'53"S, 130°52'36"E	MO 2906NM 8D 4D	MO 3793NM 10D 6D	554NM 2D 1D	ET 2590NM 7D 4D	MD 5805NM 15D 9D	MO 2559NM 7D 4D
Fremantle (FR) 31°56'25"S, 115°58'01"E	SS 4506NM 12D 7D	SS 5649NM 15D 8D	NW 2271NM 6D 3D	SS 4382NM 11D 7D	MD 5601NM 15D 8D	SS 3419NM 9D 5D
Pearl Harbor, HI K3 Helipad (02HI) 21°21'43"N, 157°57'03"W	5712NM 15D 9D	5030NM 13D 7D	6258NM 26D 9D	WP 7006NM 18D 10D	WP-SM- PW-MD 10852NM 28D 16D	TS 7021NM 18D 10D
San Diego, CA (SAN) 32°44'01"N, 117°11'23"W	PH 8588NM 22D 13D	PH 7906NM 21D 12D	PH-MO 9134NM 24D 14D	PH-WP 9504NM 25D 14D	PH-WP- SM-PW- MD 13727NM 36D 20D	PH 9896NM 26D 15D

*Sources: Latitudes and Longitudes per Australian Customs website for Australian ports and Wikipedia for US ports (rounded to nearest minute) (Accessed 20-21 November 2007). Calculations using Google Earth, plus Great Circle Mapper website for open-ocean transits (23 November 2007).*

**Note: While Appendix A quantifies the distance and time factors affecting deployment policy, Appendix B focuses on emergency responsiveness; therefore, San Diego-based ships are assumed *not* to make an enroute port visit in Pearl**

**Harbor, and times are calculated for both 16-knot (efficient) and 28-knot (rapid and sustainable) transits.**

## APPENDIX C

### AUTHOR'S BACKGROUND AND EXPERIENCE

Previous Education: I graduated from the U.S. Naval Academy in 1996 with a Bachelor of Science degree in History (military focus). Coursework here at the Command and General Staff College has given me a broadened perspective on joint, interagency, and multinational operations that will help me assess the complex interrelationships and long-term consequences of theater and national strategic policy decisions.

Military Operational Experience: I have served four tours of sea duty as a Surface Warfare Officer (ship driver) in the Navy and one tour on instructor duty at the Surface Warfare Officers' School in Newport, Rhode Island. One of my afloat Department Head tours was on a Guided Missile Frigate (FFG-48 VANDEGRIFT) forward deployed to Seventh Fleet. During that tour I gained a considerable appreciation for the strategic considerations unique to that area of operations, as well as the utility (both in terms of availability and of expertise regarding theater-unique missions, goals, and Security Cooperation Initiatives) of Forward Deployed Naval Forces (FDFN). I also gained a new appreciation for the challenges involved in expanding current U.S. bases in Japan and Guam. I was able to visit Australia and meet with some of the officers and local government officials working in and around HMAS COONAWARRA, the Royal Australian Navy's base in Darwin, Northern Territory. During that visit it occurred to me that a number of factors discussed above might combine to make Australia an ideal location for basing FDFN warships.



## REFERENCE LIST

- Adelaide City Council website. 2007. <http://www.adelaidecitycouncil.com> (accessed 22 October 2007).
- Albinski, Henry Stephen. 1982. *The Australian-American Security Relationship : A Regional And International Perspective*. Palgrave Macmillan.
- Alinio, Domingo B. 2006. *Is the Current U.S. Navy Pacific Basing Structure Adequate for the Twenty-First Century?* Master's Thesis, U.S. Army Command and General Staff College Fort Leavenworth, KS.
- Alves, Dora. 1985. *Anti-Nuclear Attitudes in New Zealand and Australia*. Washington, DC: National Defense University Press.
- Austal website. 2007. <http://www.austal.com/> (accessed 23 November 2007).
- Australian Customs webpage. 2007.  
<http://www.customs.gov.au/site/page.cfm?u=4232&areaId=9&s=search> (accessed 21 November 2007).
- Australian Defence Ministers & Parliamentary Secretary. 2007.  
<http://www.minister.defence.gov.au/nelson/speeches.cfm> (accessed 1 December 2007).
- Australian Defence Ministry Publications Webpage. 2007.  
<http://www.defence.gov.au/publications.cfm> (accessed 28 November 2007) with links to:
- [Defence Magazine](#)
  - [Defence Journal](#)
  - Defence Updates 2003 and 2005
  - Defence Annual Reports
  - [Force 2020](#)
- Australian Defence Forces Joint Combat Training Center website. 2007.  
<http://intranet.defence.gov.au/cdgweb/sites/jctc> (accessed 1 December 2007).
- Australian Government Department of Foreign Affairs and Trade website. 2007.  
[https://courses.leavenworth.army.mil/webapps/portal/frameset.jsp?tab=courses&url=/bin/common/course.pl?course\\_id=\\_748\\_1](https://courses.leavenworth.army.mil/webapps/portal/frameset.jsp?tab=courses&url=/bin/common/course.pl?course_id=_748_1) (accessed 1 December 2007).

- Australian Maritime Safety Agency (environmental data) website. 2007. [http://www.amsa.gov.au/Publications/Fact\\_sheets/PSA\\_fact.pdf](http://www.amsa.gov.au/Publications/Fact_sheets/PSA_fact.pdf) accessed 21 October 2007.
- Australian Youth Facts and Stats website. 2007. <http://www.youthfacts.com.au> (accessed 21 October 2007).
- Baker, Richard W. 1994. *The ANZUS States And Their Region : Regional Policies Of Australia, New Zealand, And The United States*. Westport, Conn.: East-West Center.
- Barclay, Glen St. John. 1985. *Friends In High Places : Australian-American Diplomatic Relations Since 1945*. London: Oxford University Press.
- Barker Jr., Leroy R. 2004. *Southeast Asia: America's Next Frontier in the Global War on Terrorism*. Fort Leavenworth, KS: CGSC.
- Blackwell, Kristine E. 2006. *Military Base Closures and Realignment: Status of the 2005 Implementation Plan*. Washington, DC: CRS.
- Blaxland, J. C. 2002. *Information-Era Manoeuvre : The Australian-Led Mission To East Timor*. Duntroon, Australia: Land Warfare Studies Centre.
- Cable News Network (CNN) website. 2007. <http://www.cnn.com> (accessed 29 November 2007).
- Camilleri, Joseph A. 1987. *The Australia New Zealand US Alliance: Regional Security in the Nuclear Age*. Boulder, Colorado: Westview Press.
- Carlson, Peter. 2003 Sins of the Son. <http://washingtonpost.com/> (accessed 1 December 2007).
- Chief of the Defence Force, [Australian] Department of Defence and Commander, U.S. Pacific Command. 2004. *Review of Operational Level Interoperability Between the Military Forces of Australia and the United States of America*. Canberra: Department of Defence.
- Chief of the Defence Force, [Australian] Department of Defence and Commander, U.S. Pacific Command. 2002. *Review of Strategic Level Interoperability Between the Military Forces of Australia and the United States of America*. Canberra: Department of Defence.
- The City of Burnie website. 2007. <http://www.burnie.net/> (accessed 23 October 2007).
- City of Port Lincoln website. 2007. <http://www.portlincoln.sa.gov.au/site/page.cfm> (accessed 23 October 2007).

Clark, Vern. "Sea Power 21: Projecting Decisive Joint Capabilities" in *Proceedings*, October 2002, accessed at <http://www.navy.mil/navydata/cno/proceedings.html> (accessed 1 December 2007).

Combined Arms Research Library (CARL) website. 2007.  
[https://courses.leavenworth.army.mil/webapps/portal/frameset.jsp?tab\\_id=\\_16\\_1](https://courses.leavenworth.army.mil/webapps/portal/frameset.jsp?tab_id=_16_1)  
(accessed 1 December 2007), including:

- Jane's Sentinel Security Assessment
- Country Watch
- Energy Information Administration Country Analysis Briefs
- Global Security World Military Guide

Commander, Naval Surface Forces. 2007. *COMNAVSURFOR Instruction 3502.1D, Surface Force Training Manual*. San Diego: Department of the Navy.

Commander, United States Pacific Fleet (COMPACFLT) website. 2007.  
[www.cpf.navy.mil](http://www.cpf.navy.mil) (accessed 1 December 2007).

Commander, U.S. Seventh Fleet (C7F) website. 2007. <http://www.c7f.navy.mil> (accessed 25 November 2007).

Congressional Budget Office website. 2007. <http://www.cbo.gov/> (accessed 20 November 2007).

Conway, John T., Gary Roughead, and Thad W. Allen. 2007. *The Maritime Strategy: A Cooperative Strategy for 21st Century Seapower 2007*.

Cooper, David A. 2001. *Competing Western Strategies Against The Proliferation Of Weapons Of Mass Destruction : Comparing The United States To A Close Ally*. Westport, Conn: Praeger Publishers.

Critchlow, Robert D. 2005. *U.S. Military Overseas Basing: New Developments and Oversight Issues for Congress*. Washington, DC: CRS.

The Currency Converter website. 2007. <http://coinmill.com/> (accessed 20 November 2007).

Currie, Duncan. "After Abe" 2007. on  
<http://www.weeklystandard.com/Content/Public/Articles/000/000/014/101hoixz.asp?pg=2> (accessed 1 December 2007).

Dibb, Paul. 2005. *U.S.-Australia alliance relations: an Australian view*. Washington, D.C.: National Defense University, Institute for National Strategic Studies.

- Director, Costing and Analysis Section, Australian Department of Defence. 2002. *The Manual of Costing, Charging and Cost Recovery, Part Two: Schedule of Rates and Charges*. Canberra: Department of Defence.
- Donnini, Frank P. 1991. *ANZUS in Revision: Changing Defense Features of Australia and New Zealand in the Mid 1980s*. Maxwell AFB, AL: Air University Press.
- Dorrance, John, ed. 1990. *The South Pacific: Emerging Security Issues and U.S. Policy*. Dulles, VA: Brassey's.
- Dunn, Peter. "Australia at War" website. 2007. <http://www.ozatwar.com/> (accessed 23 October 2007).
- Evans, Michael. 2005. *The Tyranny Of Dissonance: Australia's Strategic Culture And Way Of War, 1901-2005*. Duntroon, Australia: Land Warfare Studies Centre.
- Faulkner, Martin I. 1998. *Command, Control, and Communications Interoperability Between the Australian and United States Armies: An Australian Perspective*. Master's Thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS.
- Fremantle Ports website. 2007. <http://www.fremantleports.com.au/Shipping/Business/PortInformation.asp> (accessed 21 October 2007).
- Gackle, Jonathan O. 2000. *Deployment Integration of United States Marine Corps and Royal Australian Air Force F/A-18 Squadrons: Is It a Viable Concept?*. Master's Thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS.
- Geelong Australia webpage. 2007. <http://www.geelongaustralia.com.au/> (accessed 23 October 2007).
- Global Security website. 2007. <http://www.globalsecurity.org/> (accessed 20 November 2007).
- Google AFP News website. 2007. <http://afp.google.com/> (accessed 29 November 2007).
- Graff, David A. and Robin Higham, eds. 2002. *A Military History of China*. Cambridge, MA: Westview Press.
- Great Barrier Reef website. 2007. <http://www.gbrmpa.gov.au/> (accessed 13 November 2007).
- Hoare, Mark. 2003 *The prospects for Australian and Japanese Security Cooperation in a More Uncertain Asia-Pacific*. Duntroon, Australia: Land Warfare Studies Centre.

- Hobart City website. 2007. <http://www.hobartcity.com.au> (accessed 23 October 2007).
- Hoffpauir, Chris. 2006. "USJFCOM supports Australia, USPACOM in developing combined training capability," at <http://www.jfcom.mil/newslink/storyarchive/2006/pa102706.html> (accessed 23 April 2007).
- Hubbard, Christopher. 2005. *Australian and US Military Cooperation: Fighting Common Enemies*. Aldershot, UK: Ashgate Publishing.
- Inflation Calculator website. 2007. <http://www.inflationdata.com> (accessed 20 November 2007).
- Institute for Defense Analyses website. 2007. <http://ida.org/> (accessed 20 November 2007).
- International Imaging Center 2001. *Coalition Operations Handbook*. Ft. Leavenworth, KS: International Imaging Center.
- Kuehn, John T. 2007. *Strategic Innovation in the Interwar U.S. Navy: The Mobile Base Plan*. Draft working paper, provided by author via e-mail 23 April 2007.
- Lyon, Rod., and William Tow. 2003. *The future of the Australian-U.S. Security Relationship*. Carlisle, PA: Army War College (U.S.) Strategic Studies Institute.
- McCausland, Jeffrey D., Douglas T. Stuart, William Tow, and Michael Wesley, eds. 2007. *The Other Special Relationship: The United States and Australia at the Start of the 21<sup>st</sup> Century*. Carlisle, PA: U.S. Army War College Strategic Studies Institute.
- McIntyre, W. David (William David). 1995. *Background To The ANZUS Pact : Policy-Making, Strategy, And Diplomacy, 1945-55*. New York and Christchurch, N.Z.: MacMillan.
- Miller, Ronnie. 1994. *Following The Americans To The Persian Gulf : Canada, Australia, And The Development Of The New World Order*. Rutherford, N.J: Fairleigh Dickinson University Press.
- Morton, Louis. 1962. *U.S. Army in World War II series, The War in the Pacific subseries, Strategy and Command: The First Two Years*. Washington: Office of the Chief of Military History, Department of the Army.
- Mullen, Michael G. 2006. [http://www.navy.mil/navydata/cno/mullen/DEFENSE\\_DAILY\\_25OCT06\\_Global\\_Maritime\\_Partnership\\_Gaining\\_Steam\\_At\\_Home\\_And\\_With\\_International\\_Navies.pdf](http://www.navy.mil/navydata/cno/mullen/DEFENSE_DAILY_25OCT06_Global_Maritime_Partnership_Gaining_Steam_At_Home_And_With_International_Navies.pdf), (accessed 18 October 2007).

- Mullen, Michael G. and Michael W. Hagee. 2006. *Naval Operations Concept 2006*.
- Mullen, Michael G. and Thomas W. Collins. 2006. *NATIONAL FLEET: A Joint Navy / Coast Guard Policy Statement 2006*.
- Naval Vessel Register website. 2007. [http://www.nvr.navy.mil/nvrships/s\\_b\\_stat.htm](http://www.nvr.navy.mil/nvrships/s_b_stat.htm) (accessed 28 November 2007).
- Navy Department Bureau of Yards and Docks. 1947. *Building the Navy's Bases in World War II, Volumes I and II*. Washington: United States Government Printing Office.
- Navy Department Library website. 2007. <http://www.history.navy.mil> (accessed 20 November 2007).
- Navy League of Australia website. 2007. <http://navyleag.customer.netSPACE.net.au> (accessed 22 October 2007).
- NOAA Digital Nautical Charts website. 2007. <http://nauticalcharts.noaa.gov/MCD/enc/index.htm> (accessed 1 December 2007).
- Northern Territory Port of Darwin website. [http://www.nt.gov.au/dpa/port\\_darwin.html](http://www.nt.gov.au/dpa/port_darwin.html) (accessed 21 November 2007).
- Official Website of the United States Navy. 2007. <http://www.navy.mil/> (accessed 28 November 2007).
- O'Rourke, Ronald. 2007. *Navy Aegis Cruiser and Destroyer Modernization: Background and Issues for Congress*. Washington, DC: CRS.
- O'Rourke, Ronald. 2006. *Navy Aircraft Carriers: Proposed Retirement of USS John F. Kennedy—Issues and Options for Congress*. Washington, DC: CRS.
- O'Rourke, Ronald. 2007. *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*. Washington, DC: CRS.
- O'Rourke, Ronald. 2006. *Navy Ship Deployments: New Approaches—Background and Issues for Congress*. Washington, DC: CRS.
- O'Rourke, Ronald. 2004. *Navy Ship Procurement Rate and the Planned Size of the Navy: Background and Issues for Congress*. Washington, DC: CRS.
- O'Rourke, Ronald. 2007. *Sea-Based Ballistic Missile Defense—Background and Issues for Congress*. Washington, DC: CRS.
- Parfomak, Paul W. and John Frittelli. 2007. *Maritime Security: Potential Terrorist Attacks and Protection Priorities*. Washington, DC: CRS.

- Parkin, R.J. 2002. *A Capability Of First Resort : Amphibious Operations And Australian Defence Policy, 1901-2001*. Duntroon, Australia: Land Warfare Studies Centre.
- Port Adelaide website. 2007.  
<http://www.flindersports.com.au/pdf/PtUserGuideFacilities.pdf> (accessed 23 October 2007).
- Port Hedland website. 2007. <http://www.phpa.wa.gov.au/> (accessed 23 October 2007).
- Port Kembla website. 2007. <http://www.portkembla.com.au/> (accessed 23 October 2007).
- Port of Brisbane website. 2007. <http://www.portbris.com.au/aboutport> (accessed 21 October 2007).
- Port of Portland website. 2007. <http://www.portofportland.com.au/> (accessed 1 December 2007).
- Puttmann, William R. 1998. *U.S. and Australian Relationship: Into the Twenty-First Century*. Master's Thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS.
- RAAF Base Williamtown website. 2007.  
[http://www.defence.gov.au/raaf/organisation/info\\_on/bases/williamtown](http://www.defence.gov.au/raaf/organisation/info_on/bases/williamtown)  
 (accessed 1 December 2007).
- Royal Australian Navy (RAN) website. 2007. [www.navy.gov.au](http://www.navy.gov.au) (accessed 1 December 2007).
- Rumsfeld, Donald, and Robert Hill. 2004. *Australia-United States Joint Statement of Principles on Interoperability*.
- Ryan, Alan. 1999. *From Desert Storm To East Timor : Australia, The Asia-Pacific And 'New Age' Coalition Operations*. Duntroon, Australia: Land Warfare Studies Centre.
- Ryan, Alan. 2003. *Australian Army Cooperation With The Land Forces Of The United States: Problems Of The Junior Partner*. Duntroon, Australia: Land Warfare Studies Centre.
- Scobell, Andrew. 2003. *Strategic Effects Of The Conflict With Iraq: Australia And New Zealand*. Carlisle, PA: Army War College (U.S.): Strategic Studies Institute.
- Shepard, Stephen B. 2003. *American, British, Dutch, and Australian Coalition: Unsuccessful Band of Brothers*. Master's Thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS.

- Singh, Bilveer. 2002. *Defense Relations Between Australia and Indonesia in the Post-Cold War Era*. Westport, Connecticut: Greenwood Press.
- Stars and Stripes, "In Three-Stage Drawdown, 12,500 U.S. Troops will Leave S. Korea by 2008," 8 October 2004, via <http://www.military.com/> (accessed 1 December 2007).
- Steinbrook, Gordon L. 1995. *Allies And Mates : An American Soldier With The Australians And New Zealanders In Vietnam, 1966-67*. Lincoln, Neb.: University of Nebraska Press.
- Stevens, David, ed. 2001. *The Australian Centenary History of Defense, Volume III: The Royal Australian Navy*. South Melbourne, Australia: Oxford University Press.
- Tate, Michael A. 2001. *Is it in U.S. National Interests to Maintain Forward Deployed Military Forces in Asia?* Master's Thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS.
- Tow, William C. 2001. *Asia-Pacific Strategic Relations: Seeking Convergent Security*. New York: Cambridge.
- Townsville Port website. 2007. <http://www.townsville-port.com.au/> (accessed 13 November 2007).
- Turabian, Kate L., revised by Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams. 2007. *A Manual for Writers of Research Papers, Theses, and Dissertations, Seventh Edition*. Chicago: The University of Chicago Press.
- U.S. Army Command and General Staff College. 2006. *C200 Strategic Studies: Advance Sheets and Readings*. Fort Leavenworth, KS: U.S. Army Command and General Staff College.
- U.S. Army Command and General Staff College. 2006. *F100: Changing the Army CGSC textbook*. Fort Leavenworth, KS: U.S. Army Command and General Staff College.
- U.S. Army Command and General Staff College. 2006. *C200 Strategic Studies National Strategy Documents*. Fort Leavenworth, KS: CGSC, including:
- The National Strategy of the United States of America, March 2006
  - The National Defense Strategy of the United States of America, March 2005
  - The National Military Strategy of the United States of America 2004—A Strategy for Today; a Vision for Tomorrow, Joint Chiefs of Staff, 2004.



- United States Department of the Army. 2003. *Area Handbook For Australia*. Washington, DC: American University.
- U.S. Government Educational Statistics website. 2007.  
<http://usgovinfo.about.com/od/censusandstatistics/a/highschool.htm> (accessed 21 October 2007).
- U.S. House of Representatives Armed Services Committee website. 2007.  
<http://armedservices.house.gov> (accessed 20 November 2007).
- United States Joint Forces Command website. 2007. [www.jfcom.mil](http://www.jfcom.mil) (accessed 1 December 2007).
- U.S. Naval Institute “Military Periscope” website. 2007.  
<http://www.militaryperiscope.com.lumen.cgsccarl.com> (accessed 18 November 2007).
- United States Pacific Command (PACOM) website. 2007. <http://www.pacom.mil> (accessed 1 December 2007).
- U.S. State Department Australia page. 2007. <http://www.state.gov/p/eap/ci/as/> (accessed 1 December 2007).
- Vaughn, Bruce. 2007. *Australia: Background and U.S. Relations*. Washington, DC: CRS.
- Vaughn, Bruce. 2003. *Malaysia: Political Transition and Implications for U.S. Policy*. Washington, DC: CRS.
- Vaughn, Bruce. 2007. *U.S. Strategic and Defense Relationships in the Asia-Pacific Region*. Washington, DC: CRS.
- Western Port Action Group website. 2007.  
<http://au.geocities.com/westernportactiongroup/> (accessed 23 October 2007).
- Young, Thomas-Durell. 1993. *Australian-U.S. Security Relations In The Post-Cold War World*. Carlisle, PA: Army War College (U.S.) Strategic Studies Institute, 1993.
- Young, Thomas-Durell. 1997. “*Enhancing The Australian-U.S. Defense Relationship : A Guide To U.S. Policy*.” Carlisle, PA: Army War College (U.S.). Strategic Studies Institute.

## INITIAL DISTRIBUTION LIST

Combined Arms Research Library  
U.S. Army Command and General Staff College  
250 Gibbon Ave.  
Fort Leavenworth, KS 66027-2314

Defense Technical Information Center/OCA  
825 John J. Kingman Rd., Suite 944  
Fort Belvoir, VA 22060-6218

Sharon L. Scott  
DJIMO  
USACGSC  
100 Stimson Ave.  
Fort Leavenworth, KS 66027-2301

LTC Graeme Finney  
DJIMO  
USACGSC  
100 Stimson Ave.  
Fort Leavenworth, KS 66027-2301

Dr. John T. Kuehn  
DMH  
USACGSC  
100 Stimson Ave.  
Fort Leavenworth, KS 66027-2301